

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

RESEARCH PROPOSAL

QUARTERLY STATUS REPORT

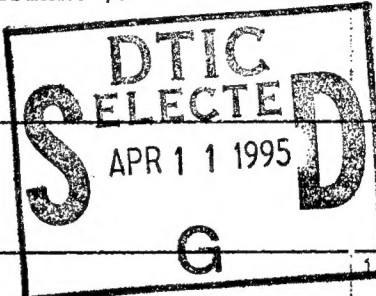


OCTOBER - DECEMBER 1994

## REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22222-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED	
4. TITLE AND SUBTITLE		5. FUNDING NUMBERS	
RESEARCH PROPOSAL QUARTERLY STATUS REPORT			
6. AUTHOR(S)  AIR FORCE OFFICE OF SCIENTIFIC RESEARCH			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  AIR FORCE OFFICE OF SCIENTIFIC RESEARCH/XPT 110 DUNCAN AVENUE SUITE B116 BOLLING AFB DC 20332-0001		8. PERFORMING ORGANIZATION REPORT NUMBER  AFOSR-TR-95-0256	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)  AIR FORCE OFFICE OF SCIENTIFIC RESEARCH/XPT 110 DUNCAN AVENUE SUITE B116 BOLLING AFB DC 20332-0001		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES		 DTIC SELECTED S APR 11 1995 D G	
12a. DISTRIBUTION/AVAILABILITY STATEMENT  APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED		12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words)  THIS RESEARCH PROPOSAL STATUS REPORT IS PUBLISHED QUARTERLY AS OF MARCH, JUNE, SEPTEMBER AND DECEMBER OF EACH YEAR.			
14. SUBJECT TERMS		15. NUMBER OF PAGES	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCL	18. SECURITY CLASSIFICATION OF THIS PAGE UNCL	19. SECURITY CLASSIFICATION OF ABSTRACT UNCL	20. LIMITATION OF ABSTRACT UNCL

# RESEARCH PROPOSAL

## QUARTERLY STATUS REPORT

Accession For	CRA& TAB <input checked="" type="checkbox"/> Unannounced Justification
By	Distribution /
Availability Codes	
Dist	Avail and / or Special
	A-1

**FOURTH QUARTER 1994**

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH SCIENTIFIC STAFF DIRECTORY  
BOLLING AIR FORCE BASE DC 20332

CC/CD - OFFICE OF THE DIRECTOR

NA - DIRECTORATE OF AEROSPACE & MATERIALS SCIENCES	Dr C.I. Jim Chang (Director) Dr Mitat Birkan Dr Walter Jones Lt Col Martin Lewis Dr James McMichael Dr Alexander Pechenik Dr Alan H. Rosenstein Dr Len Sakell Dr Julian Tishkoff Capt Charles Ward Dr Spencer Wu	EXT 4987 4938 0470 6963 4936 4962 4960 4935 0465 4960 6962	Director Deputy Director	EXT 5017 EXT 5017
NL - DIRECTORATE OF CHEMISTRY & LIFE SCIENCES	Dr William O. Berry (Director) Dr Michael Berman Lt Col Dan Collins Dr John Tangney Dr Gen Haddad Dr Fred Hedberg Dr Walter Kozumbo Dr Charles Y.C. Lee	4278 5021 5021 5021 5021 5021 5021 5021	Director Deputy Director	EXT 5017 EXT 5017
NM - DIRECTORATE OF MATHEMATICS & GEOSCIENCES	Dr Charles Holland (Director) Dr Stan Dickinson Dr Neal Glassman Dr Marc Jacobs Maj James Kroll Maj David Luginbuhl Dr Arje Nachman Dr Henry R. Radoski Dr Jon Sjogren Dr Abraham Waksman Maj Scott Schreck	5025 4964 5026 5027 5028 5028 4939 4939 4940 5028 5028	Director Deputy Director	EXT
NE - DIRECTORATE OF PHYSICS & ELECTRONICS	Dr Horst Wittmann (Director) Dr Robert Barker Dr Alan E. Craig Dr Ralph E. Kelley Lt Col Germot Pomrenke Dr Howard Schlossberg Lt Col Billy Smith Dr Harold Weinstock Dr Gerald L. Witt	EXT 4984 5011 4934 4908 4931 4906 4907 4933 4932	Director Deputy Director	EXT
NI - DIRECTORATE OF ACADEMIC & INTERNATIONAL AFFAIRS	Col Robert L. Herklotz (Director) Dr Koto White Maj David C. Hart Capt Stuart Sheldon Dr Jerome Franks	4969 4969 5013 5013 4970	Director Deputy Director	Commercial (202) 767-XXXX DSN 297-XXXX

## INTRODUCTION

The Research Proposal Quarterly Status Report is published quarterly (March, June, September, and December) by the Air Force Office of Scientific Research (AFOSR). It lists all the research proposals received by AFOSR during the past six months along with the action taken (Initiated, Declined or Withdrawn on each report).

The report is divided into two parts. The Institution Index lists proposals alphabetically by institution. This is followed by a more detailed listing by Directorate, and by Program Manager within the Directorate.

## PURPOSE

This report is designed to inform other Government sponsoring agencies of the proposals received by the AFOSR and the action taken on these proposals. Readers must keep in mind that declined proposals should not necessarily be considered as scientifically unacceptable; many declinations result from a lack of funds or as a result of special programmatic emphasis.

## AFOSR MISSION

The Air Force Office of Scientific Research (AFOSR) is the single manager of the Air Force Defense Research Sciences Program (Program Element 61102F) and the primary Air Force agency for the extramural support of fundamental scientific research. To sponsor and sustain basic research and ensure access to research results in support of the Air Force goals of control and maximum utilization of air and space. The AFOSR is organized under the Director, Science and Technology, Air Force Materiel Command.

AFOSR awards grants and contracts for research in areas of science relevant to the needs of the Air Force. Research is selected for support from proposals received in response to the Broad Agency Announcement originating from scientists investigating problems involving the search for new knowledge and the expansion of scientific principles. Selection is on the basis of scientific potential for improving Air Force operational capabilities, originality, significance of science, the qualification of the principal investigators, and the reasonableness of the proposed budget.

**KEY TO READING THE DATA**

**Title** - The title of the research proposal.

**Institution** - The organization, (e.g., college/university, company) at which the research will be conducted.

**Investigator** - The Principal Investigators proposing the research.

**Type** - N indicates a new research effort.

- R indicates a continuation of an ongoing research effort.

**Months** - The duration of the research proposal.

**Received** - The month and year in which the AFOSR received the proposal.

**Amount** - The funds requested of the AFOSR for support of the research proposal.

**Status** - A = ACCEPTED indicates that the review has been completed and the proposal recommended for funding.

- D = DECLINED indicates the proposal has been reviewed but will not be funded by the AFOSR.

- BLANK SPACE = indicates the proposal is being reviewed.

- W = WITHDRAWN indicates that the proposal submitted was removed from further consideration at the proposer's request.

**Program Manager** - The AFOSR scientific staff member assigned the responsibility for the technical evaluation of the proposal.

**Proposal #** - An AFOSR Directorate assigned control number to uniquely identify the research proposal.

**Initiate** - The proposal has been recommended to the AFOSR Directorate of Contracts for the amount and duration.

**Start Date** - The recommended date for commencement of the research.

**Total Amount** - The estimated number of dollars recommended for support of the research effort; the actual amount is subject to negotiation.

## **PART 1**

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

1

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
				\$122,139 01/03/95 \$450,000
CHEMICAL PROCESSING ADVANCED CERAMICS Southwest Research Institute	Schubab	N 36 \$450,000	A PECHENIK 95-NA-001	
DYNAMICS AND STABILITY OF BASIC MOLTEN MICRODROP DEPOSITION Massachusetts Institute of Technology	Sonin	Ain	N 36 04/10/94 \$337,704	LEWIS 95-NA-002
DEVELOPMENT OF A MICROMECHANIC THEORY OF CRACK INITIATION UNDER HIGH-CYCLE FATIGUE Univ of California, Los Angeles	Lin	T	N 36 04/10/94 \$315,760	WU 95-NA-003
MICROMECHANICS IN COMPOSITE MATERIALS Naval Research Laboratory	Sanday	Carlos	N 12 06/10/94 \$60,000	WU 95-NA-004
APPROXIMATE BOUNDARY CONDITIONS AND SUBGRID-SCALE MODELING OF THE NEAR-WALL LAYER Univ of Maryland	Piomelli	Ugo	N 36 07/10/94 \$209,868	MCMICHAEL 95-NA-005
UNSTRUCTURED H-P FINITE ELEMENT METHODS FOR UNSTEADY HIGH SPEED VISCOUS FLOWS Brown University	Karniadakis	George Em	N 18 07/10/94 \$155,000	SAKELL 95-NA-006
UNSTEADY THREE-DIMENSIONAL AERODYNAMIC FLOW Lehigh University	Rockwell	Donald	N 24 13/10/94 \$140,000	SAKELL 95-NA-007
NON-OXIDE STRUCTURAL CERAMICS - ALLOY DESIGN FOR IMPROVED SINTERABILITY AND MECHANICAL PERFORMANCE Univ of Michigan	Chen	I-Wei	N 36 20/10/94 \$600,000	A PECHENIK 95-NA-008
MICROSTRUCTURAL DESIGN OF TOUGH CERAMICS FOR CONTACT DAMAGE RESISTANCE Lehigh University	Chan	Helen	N 36 20/10/94 \$450,000	A PECHENIK 95-NA-009

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF AEROSPACE SCIENCES

PAGE 2

TITLE	TITLE (CONT.)	INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
BREAKDOWN OF TRAILING VORTICES IN COMPRESSIBLE FLOWS PAST WINGS AND CONICAL BODIES		Univ of Houston	Fazlie Hussain	N 36 26/10/94 \$200,000	A SAKELL 95-NA-010	\$50,000 01/04/95 \$200,000
AN ANALYTICAL AND EXPERIMENTAL STUDY OF FRACTURE AND FATIGUE OF MICRO ELECTROMECHANICAL SYSTEMS	Case Western Reserve University	Ballarini Roberto		N 36 26/10/94 \$364,577	JONES 95-NA-011	\$99,965 01/04/95 \$234,997
EXPERIMENTAL STUDIES OF LOW-AND HIGH-DENSITY HYPERVELOCITY REAL GAS AIR FLOWS OVER ELLIPTIC CONES AT ANGLES OF ATTACK	Calspan-US Research Center	Holden Michael		N 24 26/10/94 \$296,442	A SAKELL 95-NA-012	\$110,706 01/04/95 \$276,118
MICROMECHANICS OF PARTICULATE MATERIALS WITH BINDERS	Univ of Massachusetts	Chang Ching		N 36 26/10/94 \$276,118	A LEWIS 95-NA-013	\$2,456,000 01/04/95 \$2,456,000
CROSS-DISCIPLINARY MATERIALS RESEARCH PROGRAM	Univ of Pittsburgh	Pettit Fred		N 24 27/10/94 \$481,577	A WARD 95-NA-014	\$2,456,000 01/04/95 \$2,456,000
THE AERO-OPTICS OF TURBULENT COMPRESSIBLE SHEAR LAYERS	Princeton University	Miles Richard		N 36 27/10/94 \$286,505	A MCMICHAEL 95-NA-015	\$100,000 01/04/95 \$100,000
MODELING THE QUASI-STATIC BEHAVIOR OF DRY AND SATURATED ASSEMBLIES OF SPHERES	Stanford University	Borja Ronaldo		N 36 27/10/94 \$265,400	A LEWIS 95-NA-016	\$100,000 01/04/95 \$100,000
EFFECT OF SURFACE ROUGHNESS ON THE GUIDED WAVE ULTRASONIC CHARACTERIZATION IN AEROSPACE STRUCTURES	Iowa State University	Chimenti Dale		N 36 28/10/94 \$265,513	A MU 95-NA-017	\$100,000 01/04/95 \$100,000
MICROSTRUCTURE AND MACROSCOPIC BEHAVIOR OF RANDOM COMPOSITE MATERIALS	Princeton University	Torquato Salvatore		N 36 28/10/94 \$265,513	MU 95-NA-018	\$100,000 01/04/95 \$100,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 3

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
PEER REVIEW (CRFP-94-0002)	Chang	C. I. \$1,600,000	A WU 95-NA-019	\$333,320 20/11/94 \$1,600,000
Air Force Office of Scientific Research	Waas	Anthony	N 36 01/11/94 \$187,772	\$54,069 01/04/95 \$172,134
( ) FAILURE CRITERIA FOR COMPOSITES Univ of Michigan	Reifsnider	Kenneth	N 36 01/11/94 \$278,444	\$86,590 15/03/95 \$275,532
MECHANICS OF LONG-TERM BEHAVIOR OF HIGH TEMPERATURE POLYMER COMPOSITES Virginia Polytechnic Inst & State Univ	Holmes	John	N 24 03/11/94 \$169,539	\$84,446 15/02/95 \$169,539
( ) INFLUENCE OF LOADING FREQUENCY ON THE FATIGUE LIFE AND FRICTIONAL HEATING OF FIBER-REINFORCED CERAMIC COMPOSITES Univ of Michigan	Badir	Ashraf	N 36 08/11/94 \$3,584,090	WU 95-NA-023
CHBCU/MI FAST95) FAST CENTER FOR STRUCTURAL INTEGRITY OF AEROSPACE SYSTEMS Clark Atlanta University	Oseguera	Roberto	N 36 08/11/94 \$3,600,000	WU 95-NA-024
CHBCU/MI FAST95) FAST CENTER FOR STRUCTURAL INTEGRITY OF AEROSPACE SYSTEMS Univ of Texas, El Paso	Petuskey	William	N 36 15/11/94 \$534,000	WU 95-NA-025
( ) LAYER STRUCTURE COMPOUNDS AS BOUNDARY PHASES IN CERAMIC MATRIX COMPOSITES Arizona State University	Spanos	George	N 12 15/11/94 \$50,000	WARD 95-NA-026
( ) PHASE TRANSFORMATIONS OF A SILICIOE PRECIPITATE-STRENGTHENED BATA- TITANIUM ALLOY Naval Research Laboratory	Bonelli	Dawn	N 36 16/11/94 \$448,850	A PECHENIK 95-NA-027
( ) CONTROLLED SEGREGATION FOR INTERFACE MODIFICATION IN VAG/ALUMINA COMPOSITES Univ of Pennsylvania				\$149,850 01/03/95 \$448,850

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AN INVESTIGATION INTO THE NONLINEAR ASPECTS OF FLUTTER AND BUFFET AND THEIR CONTROL (+) Virginia Polytechnic Inst & State Univ Nayfah	Ali	N 24 18/11/94 \$160,000	A WU 95-NA-028	\$160,000 15/03/95 \$160,000
THE EFFECT OF PROCESSING ON THE INTERFACE, MICROSTRUCTURE, AND PROPERTIES OF COATED FIBER REINFORCED GLASS-CERAMIC MATRIX COMPSIS United Technologies Research Center Brennan	John	N 38 30/11/94 \$454,050	A PECHENIK 95-NA-029	\$137,131 15/02/95 \$454,050
NUMERICAL SIMULATION OF BURNETT EQUATIONS (+) Wichita State University Agarwal	Ramesh	H 20 05/12/94 \$63,214	A SAKELL 95-NA-030	\$63,214 01/02/95 \$63,214
HOLOGRAPHIC TECHNIQUE FOR MEASUREMENTS AND VISUALIZATION IN LIQUID PROPELLANT ATOMIZATION Univ of Illinois - Chicago	Poulikakos	O 0 \$249,269	A BIRKAN 95-NA-031	\$79,628 01/06/95 \$249,269
COMBUSTION OF ALUMINUM AGGLOMERATES ON SOLID PROPELLANTS (+) Brigham Young University Beckstead		N 12 07/12/94 \$69,310	A BIRKAN 95-NA-032	\$69,910 15/03/95 \$69,910
COMBUSTION OF ALUMINUM AGGLOMERATES ON SOLID PROPELLANTS (+) Brigham Young University Choueiri	H	N 12 07/12/94 \$69,910	A BIRKAN 95-NA-033	\$69,910 15/03/95 \$69,910
OPTIMIZATION OF THE ABLATIVE PULSED PLASMA THRUSTER FOR AIR FORCE MISSIONS Princeton University	Edgar	N 36 07/12/94 \$252,266	A BIRKAN 95-NA-034	\$91,454 01/03/95 \$252,266
DEVELOPMENT OF A STRUCTURE-BASED TURBULENCE MODEL (+) Stanford University Reynolds	William	N 32 07/12/94 \$360,014	A MICHAEL 95-NA-035	\$88,919 01/03/95 \$360,014
THREE DIMENSIONAL MODEL DEVELOPMENT FOR PLASMA PLUMES (+) Massachusetts Institute of Technology Hastings	Daniel	N 36 07/12/94 \$333,477	A BIRKAN 95-NA-036	\$103,400 01/08/95 \$333,477

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 5

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
( ) CAASERT95) MECHANICAL BEHAVIOR OF GRANULAR ASSEMBLIES USING A LATTICE TYPE APPROACH Univ of Arizona	Munirah Sudhu	N 36 08/12/94 \$151,328	LEWIS 95-NA-037	
( ) CAASERT95) PETROLEUM HYDROCARBON MIGRATION & BIODEGRADATION IN COLD REGION SOILS Univ of New Hampshire	Thomas Ballesteros	N 36 08/12/94 \$207,024	LEWIS 95-NA-038	
( ) CAASERT95) AUGMENTATION REQUEST FOR A STUDY ON THE SUBSURFACE TRANSPORT AND CLEANUP OF A DENSE CHLORINATED SOLVENT Auburn University	Oktay Guven	N 36 08/12/94 \$126,470	LEWIS 95-NA-039	
( ) CAASERT95) EXTENSION OF RESEARCH ON GRANULAR INSTABILITY TO HIGHER ORDER CONTINUUM THEORIES Univ of Southern California	Bardet Jean-Pierre	N 36 08/12/94 \$173,065	LEWIS 95-NA-040	
( ) CAASERT95) SHEAR BANDING AND CRACK PROPAGATION IN GEOMATERIALS: CLAYS AND SANDS Case Western Reserve University	Saada Adel	N 36 08/12/94 \$112,341	LEWIS 95-NA-041	
( ) CAASERT95) VISCOS EFFECTS IN PURE SCALE MODELING OF IMMISCIBLE FLUID FLOW THROUGH POROUS MEDIA Colorado State University	Durnford Deanna	N 36 08/12/94 \$183,049	LEWIS 95-NA-042	
( ) MODELING AND ACTIVE CONTROL OF NONLINEAR UNSTEADY MOTIONS IN COMBUSTION CHAMBERS California Institute of Technology	Culick F.	N 12 08/12/94 \$50,000	A BIRKAN 95-NA-043	\$50,000 01/04/95 \$50,000
( ) CAASERT95) EFFECTS OF GRANULAR MICROSTRUCTURE ON FATIGUE LIFE OF HIGH-TEMPERATURE CERAMICS Univ of California, San Diego	Nemat-Nasser Siavouche	N 36 08/12/94 \$140,982	LEWIS 95-NA-044	
( ) CAASERT95) UNSTABLE FINGERED FLOW IN SOIL-OIL-WATER-AIR SYSTEMS THEORETICAL PREDICTIONS AND EXPERIMENTAL VERIFICATION Cornell University	Tanino Steenhuis	N 36 08/12/94 \$196,057	LEWIS 95-NA-045	

TITLE TITLE (CONT.) INSTITUTION		INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
( )	(A) ASSERT95) ADVANCED SURFACTANTS FOR CONTAINMENT OF HALOCARBON CONTAMINATION AND MOLECULAR	Carron	N 36 08/12/94 \$176,750	LEWIS 95-NA-046	
( )	(CSBIR95) FLEXIBLE HEAT FLUX SENSOR ARRAYS	Keith			
( )	Advanced Micromachines	Dang	N 24 09/12/94 \$750,000	MCMICHAEL 95-NA-047	\$377,070 15/05/95 \$750,000
( )	(SDIR95) HIGH TEMPERATURE SENSORS AND ARRAYS FPR TURBOMACHINES	Christopher			
( )	Vatell Corporation	Hager	N 24 09/12/94 \$603,690	MCMICHAEL 95-NA-048	\$300,000 01/05/95 \$603,690
( )	(CSBIR95) UNSTEADY HEAT TRANSFER AND PRESSURE SENSORS BASED ON LUMINESCENT PHOSPHORS	Jonathan			
( )	Engineering Sciences Inc	Yu	N 24 09/12/94 \$597,633	MCMICHAEL 95-NA-049	
( )	AASERT95/SYNTHESIS, CONSOLIDATION , AND CHARACTERIZATION OF NANOCRYSTALLINE TiAl AND NiAl	Yufeng			
( )	Washington University	Sastry	N 36 12/12/94 \$180,501	WARD 95-NA-050	
( )	AASERT95/EXPERIMENTS TO CHECK A NEW MODEL OF THE BRITTLE-TO-DUCTILE TRANSITION TEMPERATURE	Shankar M.			
( )	Univ of Pennsylvania	Pape	N 36 12/12/94 \$286,900	WARD 95-NA-051	
( )	AASERT95/A STUDY OF THE KINETICS OF PHASE TRANSFORMATIONS IN NB-Ti-Al ALLOYS	David			
( )	Univ of Cincinnati	Vasudevan	N 36 12/12/94 \$167,675	WARD 95-NA-052	
( )	AASERT95/FATIGUE OF TOUGHENED SILICIDES	Vijay			
( )	Case Western Reserve University	Lewandowski	N 36 12/12/94 \$150,000	WARD 95-NA-053	
( )	(A) ASSERT95) UNSTRUCTURED GRID TECHNOLOGY RESEARCH FOR SIMULATION OF UNSTEADY, VISCOUS FLOW	John			
( )	Mississippi State University	Marcus	N 36 13/12/94 \$149,771	SAKELL 95-NA-054	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT C 1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 7

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(C) CAASERT95) MULTIPLE SCALE SIMULATION & MASSIVE PARALLEL COMPUTATION FOR DIRECT, NUMERICAL SIMULATION OF TURBULENT FLOW Univ of Colorado at Denver	Liu Chacquen	N 36 13/12/94 \$209,320	SAKELL 95-NA-055	
(C) CAASERT95) TIME ACCURATE COMPUTATION OF UNSTEADY SHOCK TUNNEL FLOWS WITH COUPLED DIAPHRAGM RUPTURE MECHANICS North Carolina State University	McRae D Scott	N 36 13/12/94 \$253,282	SAKELL 95-NA-056	
(C) CAASERT95) STABILITY & TRANSITION OF HYPERSONIC BOUNDARY-LAYER FLOWS INCLUDING THE EFFECTS OFABLITION Arizona State University	Reed Helen	N 36 13/12/94 \$192,905	SAKELL 95-NA-057	
(C) CAASERT95) EXPERIMENTAL STUDY OF NORMAL SHOCK WAVE-VORTEX INTERACTION Polytechnic Univ. - Weber Research Inst.	Kalkhoran Iraj	N 36 13/12/94 \$113,829	SAKELL 95-NA-058	
(C) CAASERT95) A STUDY OF HIGH SPEED INLETS UTILIZING ADVANCED OPTICAL DIAGNOSTICS Ohio State University	Sanimy Ho	N 36 13/12/94 \$114,781	SAKELL 95-NA-059	
(C) CAASERT95) LAMINAR-TURBULENT TRANSITION IN HIGH-SPEED BOUNDARY LAYERS WITH CURVATURE: ADDITIONAL MEASUREMENTS AT NON-ZERO ANGLE Schneider Purdue University	Steven	N 35 13/12/94 \$164,263	SAKELL 95-NA-060	
(C) CAASERT95) DEVELOPMENT OF COMPUTATIONAL FLUID DYNAMICS INTERDISCIPLINARY METHODS Georgia Institute of Tech	Smith Marilyn	N 36 13/12/94 \$84,352	SAKELL 95-NA-061	
(C) CAASERT95) DIRECT NUMERICAL SIMULATION & LINEAR ANALYSIS OF STABILITY OF NONEQUILIBRIUM HYPERSONIC BOUNDARY LAYER Zhong Univ of California, Los Angeles	Xiaolin	N 36 13/12/94 \$152,874	SAKELL 95-NA-062	
(C) CAASERT95) ACTIVE CONTROL OF CAVITY OSCILLATIONS Georgia Institute of Tech	Ahuja Krishan	N 36 13/12/94 \$167,669	SAKELL 95-NA-063	

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(A) CAASERT95) DIRECT NUMERICAL SIMULATION OF SHOCKWAVE TURBULENT BOUNDARY LAYER INTERACTION Univ of Alabama	Chung T J	N 36 13/12/94 \$97,338	SAKELL 95-NA-064	
(A) CAASERT95) STUDENT RESEARCH ON NON-OXIDE STRUCTURAL CERAMICS - ALLOY DESIGN FOR IMPROVED SINTERABILITY & MECHANICAL PERFORMANCE Univ of Michigan	I-Hwei Chen	N 36 13/12/94 \$172,333	PECHENIK 95-NA-065	
(A) CAASERT95) PREPARATION AND PROPERTIES OF NANOPHASE AND NANOCOMPOSITE OF OXIDE COATINGS Northwestern University	Spraul William	N 36 13/12/94 \$174,745	PECHENIK 95-NA-066	
(A) CAASERT95) THEORETICAL BASIS FOR FRACTURE & WEAR-IN COVALENTLY BONDED MATERIALS Univ of Florida	Whitney E. Doe	N 36 13/12/94 \$98,692	PECHENIK 95-NA-067	
(A) CAASERT95) INVESTIGATION OF BORON AS A BARRIER TO DIFFUSION/ DISSOLUTION-RELATED WEAR OF CERAMIC CUTTING TOOLS IN THE PLATINIUM Univ of Florida	Whitney E. Doe	N 36 13/12/94 \$99,496	PECHENIK 95-NA-068	
(A) CAASERT95) THEORETICAL BASIS FOR FRACTURE & WEAR IN COVALENTLY BONDED MATERIALS Univ of Florida	Mecholsky, Jr J J	N 36 13/12/94 \$98,692	PECHENIK 95-NA-069	
(A) CAASERT95) SENSOR & ACTUATOR PLACEMENT & SHAPE DESIGN OF SMART STRUCTURES Wright State University	Grandhi Rama Rao	N 36 13/12/94 \$137,461	UU 95-NA-070	
(A) CAASERT95) AEROSERVOELASTIC PROBLEMS ASSOCIATED WITH EXTERNAL STORES & INNOVATIVE SCALING LAWS FOR SUCH PROBLEMS Univ of California, Los Angeles	Friedmann Perets	N 36 13/12/94 \$137,080	UU 95-NA-071	
(A) CAASERT95) INSTABILITIES IN CELLULAR SOLIDS Univ of Texas at Austin	Kyriakides Stelios	N 36 13/12/94 \$138,480	UU 95-NA-072	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 9

TITLE	TITLE (CONT.)	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT95) LIMIT CYCLE OSCILLATIONS (CLCO) AND NONLINEAR AEROELASTIC WING RESPONSE	Dowell	Earl	N 36 13/12/94 \$142,108	WU 95-NA-073	
CAASERT95) CRACK PROPAGATION BY ELEMENT-FREE GALERKIN METHODS	Belytschko	Ted	N 36 13/12/94 \$160,474	WU 95-NA-074	
CAASERT95) DAMAGE AND FRACTURE IN QUASI-BRITTLE MATERIALS	Bazant	Ildenek	N 36 13/12/94 \$170,811	WU 95-NA-075	
CAASERT95) REDUCTION OF GAS TURBINE BLADE/HUB HEAT TRANSFER USING A FENCE DEVICE	Simpson	Roger	N 36 13/12/94 \$131,029	MCMICHAEL 95-NA-076	
CAASERT95) MICRO FLUID DYNAMICS IN MICRO-SIZED MICROCHANNEL	Tai	Yu-Chang	N 36 13/12/94 \$230,496	MCMICHAEL 95-NA-077	
CAASERT95) GRADUATE STUDENT SUPPORT FOR DEVELOPMENT OF DOPPLER GLOBAL VELOCIMETRY	Kuhlman	John	N 36 13/12/94 \$115,401	MCMICHAEL 95-NA-078	
CAASERT95) FLUID AND THERMAL MODELLING OF MICROMACHINES DEVICES	Brewer	Kenneth	N 36 13/12/94 \$213,037	MCMICHAEL 95-NA-079	
CAASERT95) STRUCTURE BASED TURBULENCE MODELING	Reynolds	William	N 36 13/12/94 \$147,645	MCMICHAEL 95-NA-080	
CAASERT95) ADVANCED CONCEPTS FOR BOUNDARY LAYER CONTROL	Kim	John	N 36 13/12/94 \$96,939	MCMICHAEL 95-NA-081	
Univ of California, Los Angeles					

TITLE INSTITUTION	TITLE (CONT.) INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT95) APPLICATION OF MOLECULAR TAGGING DIAGNOSTICS TO TURBULENT MIXING ENHANCEMENT AND CONTROL STUDIES Michigan State University	Koochesfahani Manoochehr	N 36 13/12/94 \$195,217	MCMICHAEL 95-NA-082	
CAASERT95) FLOW THROUGH A MICRON SIZE CHANNEL Univ of California, Los Angeles	Ho Chih-Ming	N 36 13/12/94 \$172,758	MCMICHAEL 95-NA-083	
CAASERT95) SCATTERING PROCESSES ASSOCIATED WITH INSTABILITY WAVES IN COMPRESSIBLE SHEAR LAYERS Univ of Arizona	Kerschen Edward	N 36 13/12/94 \$248,575	MCMICHAEL 95-NA-084	
CAASERT95) RECEIPTIVITY OF LARGE DISTURBANCES IN BOUNDARY-LAYER TRANSITION Arizona State University	Saric William	N 36 13/12/94 \$105,517	MCMICHAEL 95-NA-085	
AAASERT95/ THREE DIMENSIONAL MODEL DEVELOPMENTS FOR PLASMA PLUMES Massachusetts Institute of Technology	Hastings Daniel	N 36 13/12/94 \$107,231	BIRKAN 95-NA-086	
AAASERT95/ STUDENT RESEARCH IN ROCKET AND PLUME REACTION KINETICS Rensselaer Polytechnic Institute	Fontijn Arthur	N 36 13/12/94 \$296,941	BIRKAN 95-NA-087	
AAASERT95/ ELECTRON-BEAM FLUORESCENCE MEASUREMENT ON HYDROGEN Univ of California, San Diego		N 36 13/12/94 \$100,901	BIRKAN 95-NA-088	
AAASERT95/ DYNAMIC RESPONSES OF SUPERCritical DROPLET VAPORIZATION AND COMBUSTION TO ACOUSTIC OSCILLATIONS Pennsylvania State University		N 36 13/12/94 \$121,345	BIRKAN 95-NA-089	
AAASERT95/ OPTIMIZATION OF NON-EQUILIBRIUM HYDRAZINE ARCJETS Univ of Illinois		N 36 13/12/94 \$206,763	BIRKAN 95-NA-090	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 11

TITLE INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/ SUPPORT FOR GRADUATE RESEARCH IN SUPERSONIC REACTING FLOWS Stanford University		N 36 13/12/94 \$206,670	TISHKOFF 95-NA-091	
AASERT95/ SCIENCE AND ENGINEERING TRAINING IN COMBUSTION AND PROPULSION Princeton University		N 36 13/12/94 \$246,020	TISHKOFF 95-NA-092	
AASERT95/ MODELING OF DEPOSIT FORMATION DURING THERMAL DEGRADATION OF COAL-DERIVED JET FUELS Pennsylvania State University		N 36 13/12/94 \$108,671	TISHKOFF 95-NA-093	
AASERT95 DEVELOPMENT OF A TECHNIQUE TO DETERMINE THE MORPHOLOGY AND DYNAMICS OF AGGLOMERATES IN CHEMICALLY REACTING FLOWS Louisiana State University		N 36 13/12/94 \$122,792	TISHKOFF 95-NA-094	
AASERT95/ MICROMECHANISM BASED MODELLING OF METAL MATRIX COMPOSITES Texas Engineering Experiment Station		N 36 14/12/94 \$148,194	JONES 95-NA-095	
AASERT95/ PROCESSING OF FUNCTIONALLY GRADED COATING Univ of Washington		N 36 14/12/94 \$118,333	JONES 95-NA-096	
AASERT95/ BALLISTIC RAM PERFORATION OF COMPOSITE CURVED PANELS Univ of New Orleans		N 36 14/12/94 \$147,943	JONES 95-NA-097	
AASERT95/ CYCLIC AND FATIGUE DAMAGE IN HIGH TEMPERATURE METAL MATRIX COMPOSITES Louisiana State University		N 36 14/12/94 \$165,735	JONES 95-NA-098	
AASERT95/ EFFECTS OF SERVICE ENVIRONMENT ON THE MECHANICAL BEHAVIOR OF COMPOSITE LAMINATES CONTAINING STRESS CONCENTRATIONS Univ of Dayton		N 36 14/12/94 \$97,957	JONES 95-NA-099	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 12

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/ NON-DESTRUCTIVE EVALUATION OF ADVANCED COMPOSITES Tulane University		N 36 14/12/94 \$109,605	JONES 95-NA-100	
AASERT95/ ANALYSIS OF NON-AXISYMMETRIC CRACKING IN CERAMIC MATRIX COMPOSITES Univ of Missouri		N 36 14/12/94 \$104,901	JONES 95-NA-101	
AASERT95/ THE AIR FORCE GRADUATE SCHOLARS FOR HIGH TEMPERATURE MATERIALS Univ of South Carolina		N 36 14/12/94 \$157,354	JONES 95-NA-102	
AASERT95/ FUNCTIONALLY GRADIENT MATERIALS: DEVELOPMENT OF THERMAL BARRIER COATINGS AND INTERPHASE Pennsylvania State University		N 36 14/12/94 \$240,353	JONES 95-NA-103	
AASERT95/ FAILURE PROGRESSION IN CERAMIC COMPOSITE LAMINATES Univ of Tennessee		N 36 14/12/94 \$75,976	JONES 95-NA-104	
AASERT95/ FAILURE INITIATION AND RUPTURE OF FIBER-REINFORCED CERAMICS Univ of New Mexico		N 36 14/12/94 \$133,360	JONES 95-NA-105	
AASERT95/ FRACTURE AND FATIGUE CRACK GROWTH BEHAVIOR OF ADVANCED CERAMIC MATRIX COMPOSITES Univ of Dayton		N 36 14/12/94 \$94,250	JONES 95-NA-106	
ON-LINE PROCESSING OF THERMOPLASTIC COMPOSITE MATERIALS Stanford University	Stephen Tsai	N 12 14/12/94 \$69,986	WU 95-NA-107	\$49,984 01/04/95 \$49,984
SECONDARY BREAKUP AND TURBULENCE INTERACTIONS OF DROPS Univ of Michigan	Faeth Gerard	N 36 15/12/94 \$342,000	A FISHKOFF 95-NA-108	\$109,675 15/07/95 \$342,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 13

TITLE	TYPE/MONTHS RECEIVED	STATUS	PROGRAM MANAGER	INITIATE START DATE	TOT AMT
TITLE (CONT.)	RECEIVED AMOUNT	PROPOSAL #			
INVESTIGATOR					
RESEARCH ON OPTICS AND MICROELECTRONICS THIS FILM RELIABILITY	N 12 16/12/94 \$50,000	A		\$50,000 01/06/95	
Aerospace Corporation	Hallie Kitchens	MU 95-NA-109 \$50,000			\$50,000
BIOMOLECULAR PLASMA PROCESSES IN HIGH PERFORMANCE ARCJETS PLASMA MODELING	N 12 20/12/94 \$90,000	A	BIRKAN	\$90,000 01/08/95	
Univ of Illinois	Burton	Rodney	95-NA-110		\$90,000
FUNDAMENTAL STUDIES OF THE ELECTRODE REGIONS IN ARCJET THRUSTERS	R 36 20/12/94 \$299,810	A	BIRKAN	\$103,345 01/08/95	
Stanford University	Cappelli	Mark	95-NA-111		\$299,810
DROPLET COLLISION IN LIQUID PROPULSION COMBUSTION	R 24 20/12/94 \$115,000	A	BIRKAN	\$115,000 01/05/95	
Princeton University	Law	C	95-NA-112		\$115,000
SUPPORT FOR COMBUSTION INSTITUTE	N 24 20/12/94 \$20,000	A	BIRKAN	\$20,000 01/04/95	
Combustion Institute	Sawyer	R	95-NA-113		\$20,000
SPACERCRAFT INTERACTION STUDIES WITH 11 KW CLASS CLOSED-DRIFT HALL	N 36 20/12/94 \$371,665	A	BIRKAN	\$127,738 01/04/95	
THRUSTERS	Gallimore	Alec	95-NA-114		\$615,592
Univ of Michigan	Wong	Ming-Show			
PREPARATION AND CHARACTERIZATION OF SUPERHARD MATERIALS OF CRYSTALLINE CARBON NITRIDE	N 36 20/12/94 \$299,828	A	PECHENIK	\$198,847 01/05/95	
Northwestern University	Liu	Wing Kam	95-NA-115		\$298,829
MULTIPLE SCALE REPRODUCING KERNEL METHODS FOR COMPRESSIBLE FLOW-STRUCTURE SYSTEMS	N 12 20/12/94 \$79,723	A		\$79,723 01/04/95	
Northwestern University					\$79,723
ANODE CURRENT ATTACHMENT IN COLLISIONAL PLASMAS	N 18 20/12/94 \$129,768	A	BIRKAN	\$48,224 01/04/95	
Olin Aerospace Corp	Butler				\$129,768

TITLE (CONT.)	INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	PROGRAM MANAGER PROPOSAL #	STATUS	INITIATE DATE	TOT AMT
HIGH PRESSURE DROPLET VAPORIZATION AND DYNAMICS APPLIED COMBUSTION	Pennsylvania State University	Yang	N 36 21/12/94 \$183,506	BIRKAN 95-NA-118	A	\$183,506 01/03/95 \$183,506	
CONTRIBUTIONS OF SHEAR COAXIAL INJECTORS TO LIQUID ROCKET MOTOR COMBUSTION INSTABILITIES	Pennsylvania State University	Micci	N 24 21/12/94 \$142,782	BIRKAN 95-NA-119	A	\$142,782 01/03/95 \$142,782	
COMBUSTION KINETICS OF HEIMS AND METALLIC FUELS	Rensselaer Polytechnic Institute	Fantijn	N 36 21/12/94 \$298,987	BIRKAN 95-NA-120	A	\$99,641 15/03/95 \$298,987	
CERAMIC MATRIX COMPOSITES FOR GAS TURBINE ENGINES	Georgia Tech Research Corporation	Starr	N 60 22/12/94 \$3,115,672	WARD 95-NA-121	A	\$745,157 01/05/95 \$3,735,106	
PRE/T/95 A UNIVERSITY-INDUSTRY PARTNERSHIP FOR RESEARCH AND TRANSITION OF GAMMA TITANIUM ALUMINIDES	Carnegie-Mellon University	Pollock	N 60 22/12/94 \$3,685,106	WARD 95-NA-122	A	\$745,157 01/05/95 \$3,735,106	
ADVANCED HIGH TEMPERATURE MOLYBDENUM ALLOYS	United Technologies Research Center	Giamoi	N 12 22/12/94 \$199,730	WARD 95-NA-123	A	\$199,730 01/04/95 \$199,730	
MIXED ATOMISTIC/CONTINUUM STUDIES OF DEFECTS IN ELECTRONIC AND STRUCTURAL MATERIALS	Brown University	Fround	N 36 23/12/94 \$367,492	JONES 95-NA-124	A	\$246,480 15/03/95 \$367,492	
OPTICAL PHASE CORRECTION IN A PLANE SHEAR LAYER USING PARALLEL OPTOELECTRONIC IMAGE PROCESSING, GLOBAL OPTICAL FLOW DIAGNOSTICS	Univ of Illinois	Pearlstein	N 36 27/12/94 \$234,070	MCMICHAEL 95-NA-125	A	\$78,072 01/04/95 \$234,070	
DAMAGE ACCUMULATION MECHANISMS IN TBC COATED SINGLE CRYSTAL SUPERALLOY	Wayne State University	Newaz	N 36 27/12/94 \$240,379	JONES 95-NA-126	A	\$99,312 15/03/95 \$240,379	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 15

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
RESEARCH FOR ADVANCED AIRCRAFT ENGINE STRUCTURES AT TEXAS ACM UNIVERSITY, 1995-96 Texas A and M Research Foundation	J. Vance	R 27/12/94 \$42,962	A JONES 95-NA-127	\$42,962 15/08/95 \$42,962
NON-CONTACT ULTRASOUND SYSTEM FOR DETECTION OF FATIGUE AND CORROSION DAMAGE IN AIRCRAFT Johns Hopkins University	Green, Jr. Robert	N 27/12/94 \$93,758	A JONES 95-NA-128	\$99,758 01/04/95 \$99,758
ACTUATORS AND SENSORS FOR TURBULENT BOUNDARY LAYER CONTROL Stanford University	Reynolds William	N 28/12/94 \$329,841	A MCMICHAEL 95-NA-129	\$89,953 01/04/95 \$329,841
SURFACE MODIFICATION OF STRUCTURAL CERMICS BY ION IMPLANTATION AND POST-IMPLANTATION ANNEALING A1203 AND Si3N <sub>4</sub> Univ of California, Los Angeles	Ardell	N 28/12/94 \$50,000	A PECHENIK 95-NA-130	\$50,000 01/02/95 \$50,000
PARTICLE DISPERSION IN TURBULENT SPRAYS Univ of California, Davis	Kennedy Ian	N 28/12/94 \$266,829	A TISHKOFF 95-NA-131	\$92,647 01/08/95 \$260,829
BIAXIAL FAILURE ANALYSIS OF GRAPHITE/POLYIMIDE COMPOSITES Oregon Graduate Institute	Kumosa Maciej	N 29/12/94 \$173,648	A JONES 95-NA-132	\$60,638 15/03/95 \$173,648
IMPLEMENTATION OF ELECTRICAL RESISTIVITY TO EVALUATE OXIDATION RESISTANCE OF CARBON-CARBON COMPOSITES Texas Engineering Experiment Station	Ochoa Oden	R 29/12/94 \$75,554	A JONES 95-NA-133	\$75,554 15/08/95 \$75,554
PROVIDE GRAPHICS SUPPORT FOR PROFESSOR PARVIZ MOIN, STANFORD UNIVERSITY AFOSR GRANT 93-1-0078 NASA - Ames Research Center	Mansour Naji	N 29/12/94 \$32,506	A MCMICHAEL 95-NA-134	\$32,506 01/10/94 \$32,506

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF CHEMICAL AND ATMOSPHERIC SCIENCES

PAGE 1

TITLE	TITLE (CONT.)	INVESTIGATOR	TYPE/MONTHS		STATUS	PROGRAM MANAGER	PROPOSAL #
			RECEIVED	AMOUNT			
SUPRAMOLECULAR ORGANIZATION USING A SYNTHETIC ANALOGUE OF BIOMINER	ALIZATION	Bianconi	R 03/10/94	\$450,000	N 36	HEDBERG	\$150,000
Pennsylvania State University		Patricia			01/06/95		
DEVELOPMENT OF A STRUCTURE-BASED TURBULENCE MODEL		Reynolds	William		95-NC-001		
Stanford University							

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 3

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
HBCU/MI FAST 95 ESTABLISHMENT OF AN AF FUTURE AEROSPACE SCIENCE & TECHNOLOGY CENTER FOR INFRARED SURVEILLANCE & COUNTERMEASURES Fisk University	Warren	N 36 08/11/94 \$1,597,908	POMRENKE 95-NE-019	
HBCU/MI FAST 95 FAST CENTER FOR IR SEMICONDUCTOR TECHNOLOGY(FIRST) Univ of New Mexico	Kevin Malloy	N 36 08/11/94 \$3,590,068	POMRENKE 95-NE-020	
RARE-EARTH-DOPED SILICON CARBIDE AND NITRIDE SEMICONDUCTORS FOR HIGH SPEED OPTICAL FIRER COMMUNICATIONS TECHNOLOGY AT 1.3-1.55 UM Univ of Cincinnati	Andrew Stockl	N 36 10/11/94 \$379,135	POMRENKE 95-NE-021	
NEURAL NETWORK DETERMINATION OF OPTICAL PHASE CORRECTION IN A PLAN E SHSEAR LAYER USING PARALLEL OPTOELECTRONIC IMAGE PROCESSING,GLOBAL Georgia Institute of Tech	Mark Allen	N 36 10/11/94 \$146,564	CRAIG 95-NE-022	
LOW TEMPERATURE SUPERCONDUCTOR DIGITAL ELECTRONICS State University of New York	Likharev Konstantin	N 24 14/11/94 \$2,888,086	WEINSTOCK 95-NE-023	\$1,450,000 15/09/95 \$2,900,000
MECHANISM OF MICROSTRUCTURE DEVELOPMENT IN MELT-TEXTURED Y-Ba-Cu-O SUPERCONDUCTORS Intermagetics General Corp	Selvamanickam V	N 36 14/11/94 \$202,189	WEINSTOCK 95-NE-024	\$68,871 15/03/95 \$196,026
DEVICE PROPERTIES OF METAL-SEMICONDUCTOR COMPOSITE MATERIALS FOR INFRARED DETECTION Howard University	Bates, Jr Clayton	N 36 15/11/94 \$500,000	POMRENKE 95-NE-025	
SAIR95 MATERIALS FOR PERSISTENT SPECTRAL HOLEBURNING RESEARCH Scientific Materials Corp	Ralph Hutchesson	N 24 16/11/94 \$564,864	CRAIG 95-NE-026	\$300,000 01/05/95 \$564,864
SAIR95 DOUBLED DIODE LASER Beacon Research Co	G. Deacon David	N 24 16/11/94 \$750,000	SCHLOSSBER 95-NE-027	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

TITLE  
TITLE (CONT.)  
INSTITUTION

SBIR95 COMPACT TUNABLE LIGHT SOURCES BASED ON NON-LINEAR OPTICS  
Focused Research Inc

INVESTIGATOR

Day  
Spectra Diode Laboratories, Inc

TYPE/MONTHS  
RECEIVED  
AMOUNT

INITIATE  
START DATE  
TOT AMT

SBIR95 LOW COST COMPACT BLUE LASER  
Core Tek Inc

Tayebati

Sanders  
Steve

Williamson

PICOTRONIX

SBIR95 OPTO-ELECTRONIC COMPONENTS FROM NON-STOCHIOMETRIC III-V  
MATERIALS  
Scientific Research Associates, Inc.

Grubin

Harold

Williamson

PICOTRONIX

SBIR95 NEGATIVE-ENERGY CYCLOTRON RESONANCE MASER  
Univ of California, Davis

Luhmann, Jr

Neville

Gordon Research Conference Inc

Greene

Chris

Gordon Research Conference Inc

KELLEY

SBIR95 HIGH PERFORMANCE GYROKLYSTRON AMPLIFIER  
Univ of California, Davis

Luhmann, Jr

Neville

CAASERT-95) BASIC RESEARCH IN MICROWAVE-PLASMA INTERACTION  
Polytechnic Univ. - Weber Research Inst.

Kuo

Spencer

CAASERT-95) BASIC RESEARCH IN MICROWAVE-PLASMA INTERACTION  
Polytechnic Univ. - Weber Research Inst.

Kuo

PAGE 4

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 1

TITLE INSTITUTION	TITLE (CONT.) INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS PROPOSAL #	INITIATE START DATE TOT AMT	
				TYPE	MONTHS AMOUNT
THEORETICAL & EXPERIMENTAL DEVELOPMENT OF COMPOSITE MATERIAL VACUUM FIELD EMITTERS: APPLICATION TO RF GENERATION CAMPAMIFICATION Pennsylvania State University	Paul Cutler	N 04/10/94 \$747,615	D BARKER 95-NE-001		
LABORATORY EXAMINATION OF SUPERCONDUCTIVITY IN MATERIALS POSSESSING P AND P-LIKE ORBITAL ELECTRONIC DELOCALIZATION New Mexico State University	James Bentley	N 04/10/94 \$426,591	D WEINSTOCK 95-NE-002		
SUPPORT OF THE 5TH INTERNATIONAL CONFERENCE ON CHEMICAL BEAM EPITAXY AND RELATED GROWTH TECHNIQUES Univ of California, San Diego	Charles Tu	N 11/10/94 \$4,000	D POMRENKE 95-NE-003		
OPTICAL COMPUTING SUBSYSTEMS DEMONSTRATION Optivision, Inc.	Matthew Dorstine	N 11/10/94 \$610,636	D CRAIG 95-NE-004		
EVALUATION OF LOW TEMPERATURE GROWN GAAS FOR APPLICATIONS TO GATE INSULATOR AND PASSIVATION Motorola Phoenix Corp Research Lab	Abrokah Jon	N 13/10/94 \$1,385,726	D WITT 95-NE-005		
DESIGN AND CHARACTERIZATION OF MIS TRANSISTORS FROM III-V SEMICONDUCTORS Univ of Illinois	Hadiis Morkoc	N 14/10/94 \$600,000	D WITT 95-NE-006		
THE NEXT STEP IN PHOTONIC DEVICE CHARACTERIZATION & DEVELOPMENT: INTEGRATING DRAMATIC NEAR-FIELD OPTICAL DEVELOPMENTS WITH FEMTOSEC Cornell University	Aaron Lewis	N 14/10/94 \$360,153	D SCHLOSSBER 95-NE-007		
RESEARCH ON SILICON-BASED OPTICAL DEVICES Carnegie-Mellon University	Greve David	N 19/10/94 \$398,982	D A POMRENKE 95-NE-008		
TUNABLE & EFFICIENT MID-INFRARED OPTICAL PARAMETRIC OSCILLATORS & AMPLIFIERS & FREQUENCY DOUBLERS BASED ON NOVEL SEMICONDUCTOR STRUC Jouling Green State University	Ding Yujie	N 19/10/94 \$224,817	D SCHLOSSBER 95-NE-009		
					\$125,000 01/02/95 \$398,982



REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 5

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT-95) GRADUATE STUDENT RESEARCH ON MILLIMETER WAVE SOURCES  Univ of Michigan	Ronald Gilgenbach	N 36 23/11/94 \$113,510	BARKER 95-NE-037	
CAASERT-95) A COMPACT ULTRA-WIDEBAND MILLIMETER-WAVE PHOTOCATHODE FREE-ELECTRON LASER OPERATING AT GIGAHERTZ REPETITION RATES IN Univ of California, Davis	Luhmann, Jr	N 36 23/11/94 \$150,000	BARKER 95-NE-038	
CAASERT-95) TRANSPORT PROCESSES IN PLASMAS  Rutgers - The State University	Joel Lebowitz	N 36 23/11/94 \$181,559	BARKER 95-NE-039	
CAASERT-95) RESEARCH TRAINING FOR MINORITY STUDENTS  Knoxville College	Mark Radar	N 36 23/11/94 \$261,729	BARKER 95-NE-040	
CAASERT-95) MEASUREMENT OF INTERNAL PLASMA FIELDS USING A FREE- FLIGHT PROBE Univ of Washington	Thomas Jarboe	N 36 23/11/94 \$137,082	BARKER 95-NE-041	
CAASERT-95) OPTICAL EMISSION FROM SI AND SIGE ALLOYS AND SUPERLATTICES Univ of Rochester	Dennis Hall	N 36 23/11/94 \$116,305	BARKER 95-NE-042	
CAASERT-95) HIGH EFFICIENCY, LARGE INPUT-OUTPUT ISOLATION, 1.55 UM WAVELLENGTH CONVERTER Univ of Maryland	Mario Degenais	N 24 23/11/94 \$127,014	CRAIG 95-NE-043	
CAASERT-95) CASCADING FOR NONLINEAR OPTICS  Univ of Central Florida	George Stegeman	N 36 23/11/94 \$136,559	CRAIG 95-NE-044	
CAASERT-95) AUGMENTATION FOR 3-DIMENSIONAL OPTICALLY INTER- CONNECTED CAMERAS USING SILICON NEURAL NETWORKS Georgia Institute of Tech	Nan Marie Jekerst	N 36 23/11/94 \$150,653	CRAIG 95-NE-045	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 6

TITLE  
TITLE (CONT.)  
INSTITUTION

CAASERT-95) SPATIAL SOLITION INTERACTIONS  
Univ of Colorado

INVESTIGATOR  
Wagner

TYPE/MONTHS  
RECEIVED  
AMOUNT

INITIATE  
START DATE  
TOT AMT

CAASERT-95) WIDE ANGULAR APERTURE ACOUSTOOPTIC DEVICES  
Univ of Colorado

Kelvin  
Wagner

PROGRAM MANAGER  
PROPOSAL #

CAASERT-95) VIOLET AND ULTRA VIOLET SEMICONDUCTOR LASERS FOR HIGH  
DENSITY OPTICAL MEMORIES  
Cornell University

Kelvin  
Lester  
Eastman

CRAIG  
95-NE-046

CAASERT-95) ADAPTIVE PHASED-ARRAY RADAR SIGNAL PROCESSING USING  
PHOTOREFRACTIVE VOLUME HOLOGRAM  
Univ of Colorado

Kelvin  
Wagner

CRAIG  
95-NE-048

CAASERT-95) MULTIWAVELENGTH ARITHMETIC LOGIC UNIT USING OPTICAL  
FOUR-WAVE MIXING  
Univ of California, Santa Barbara

Pochai  
Yeh

CRAIG  
95-NE-049

CAASERT-95) GRADUATE AND UNDERGRADUATE STUDIES OF MATERIALS FOR  
OPTICAL MEMORIES AND SIGNAL PROCESSING  
Montana State University

Rufus  
Cone

CRAIG  
95-NE-051

CAASERT-95) SPATIAL-SPECTRAL HOLOGRAPHY: PRINCIPLES AND  
APPLICATIONS  
Univ of Oregon

Thomas  
Mossberg

CRAIG  
95-NE-052

CAASERT-95) NOISE CHAPACTERIZATION OF DEVICES FOR OPTICAL  
COMPUTING  
Texas Tech University

John  
Walkup

CRAIG  
95-NE-053

CAASERT-95) DESIGN, FABRICATION, AND TEST OF ELECTRO-OPTICAL BEAM  
STEERING MICRO DEVICES FOR OPTICAL MEMORY SYSTEMS  
Syracuse University

Q. Wang

CRAIG  
95-NE-054

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 7

TITLE	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS	PROGRAM MANAGER	PROPOSAL #	INITIATE START DATE	TOT AMT
CAASERT-95) QMRAAM AND QDOSP SMART PIXEL CHIPSET DEVELOPMENT	Fouad Kiamilev	N 23/11/94 \$110,346	CRAIG 95-NE-055				
Univ of North Carolina							
CAASERT-95) COHERENT TRANSIENT PROCESSORS AND MATERIALS	Mr Randall Babbitt	N 23/11/94 \$184,690	CRAIG 95-NE-056				
Univ of Washington							
CAASERT-95) LOW COST FABRICATION METHOD FOR COLOR FILTER OF FLAT PANFL DISPLAY	Deshen Shen	N 23/11/94 \$163,660	CRAIG 95-NE-057				
Univ of Alabama							
CAASERT-95) PRECISION MEASUREMENTS WITH HYDROGEN AND RUBIDIUM MASERS	Ronald Walmsorth	N 23/11/94 \$34,754	KELLEY 95-NE-058				
Smithsonian Institution							
CAASERT-95) DISSOCIATIVE RECOMBINATION AND ATOMIC BEAM COOLING STUDIES USING LASER RADIATION	Kenneth Hardy	N 23/11/94 \$190,575	KELLEY 95-NE-059				
Florida International University							
CAASERT-95) ANTI PROTONS AND ANTI HYDROGEN	Gerald Gabrielse	N 23/11/94 \$285,184	KELLEY 95-NE-060				
Harvard University							
CAASERT-95) PATH INTEGRAL STUDIES OF ENERGETIC IMPURITIES IN H2/HE SLURRIES	Katherine Whaley	N 23/11/94 \$80,453	KELLEY 95-NE-061				
Univ of California, Berkeley							
CAASERT-95) MOLECULAR BEAM EPITAXIALLY GROWN CDT FOR X-RAY DETECTORS	Faurie Jean-Pierre	N 23/11/94 \$233,850	POMRENKE 95-NE-062				
Univ of Illinois - Chicago							
CAASERT-95) GROWTH AND MODELLING OF Cd (1-x) Zn(x) TE ALLOY EPILAYERS	Sivananthan Sivalingam	N 23/11/94 \$129,141	POMRENKE 95-NE-063				
Univ of Illinois - Chicago							

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 8

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT	
				TYPE	MONTHS
(AASERT-95) GRADUATE STUDENT SUPPORT California Institute of Technology	McGill	Thomas	N 36 23/11/94 \$148,232	POMRENKE 95-NE-064	
(AASERT-95) SURFACE CHEMISTRY AND MATERIALS SYNTHESIS Cornell University	Ho	Wilson	N 36 23/11/94 \$118,000	POMRENKE 95-NE-065	
(AASERT-95) CRITICAL-COMPOSITION BUFFER LAYERS BY GAS-SOURCE MBE Colorado State University	Robinson	Gary	N 36 23/11/94 \$133,000	POMRENKE 95-NE-066	
(AASERT-95) RARE EARTH DOPANT SOURCES FOR SEMICONDUCTORS Georgia Institute of Tech	Rees, Jr.	William	N 36 23/11/94 \$270,750	POMRENKE 95-NE-067	
(AASERT-95) MICROMACHINED SUBSTRATES FOR MICROWAVE AND MM-WAVE Univ of Michigan	B. Katechi	Linda	N 36 23/11/94 \$131,137	POMRENKE 95-NE-068	
(AASERT-95) OPTICAL & ELECTRICAL INVESTIGATIONS OF WIDEGAP NITRIDES FOR APPLICATIONS IN EPITAXIAL GROWTH & DEVICES Oklahoma State University	Song	Jin-Joo	N 36 23/11/94 \$116,909	POMRENKE 95-NE-069	
(AASERT-95) ULTRAFAST OF LIGHT MODULATOR AT 1.55 MICRUMETER City College - CUNY	Shu	Kai	N 36 23/11/94 \$136,833	POMRENKE 95-NE-070	
(AASERT-95) IMPACT OF CARRIER DYNAMICS AND RELATED OPTICAL NON-LINERARITIES ON MID-IR DIODE Univ of Iowa	Bogges	Thomas	N 36 23/11/94 \$99,127	POMRENKE 95-NE-071	
(AASERT-95) DEVELOPING RARE-EARTH-DOPED SEMICONDUCTOR LIGHT SOURCES Univ of Arizona	Gibbs	Hyatt	N 36 23/11/94 \$125,000	POMRENKE 95-NE-072	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 9

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(AASERT-95) RARE EARTH ELEMENT IMPURITIES AND SEMICONDUCTORS Case Western Reserve University	Walter R.L. Lambrecht	N 36 23/11/94 \$129,277	POMRENKE 95-NE-073	
(AASERT-95) BAND OFFSETS AND INFRARED DETECTOR APPLICATIONS OF (SiI-XY GE(XY) ALLOYS) Princeton University	James Sturm	N 36 23/11/94 \$140,078	POMRENKE 95-NE-074	
(AASERT-95) HIGH RESOLUTION THERMOREFRACTIVE FACEPLATES 'Univ of Dayton	Becker Roger	N 36 23/11/94 \$94,253	POMRENKE 95-NE-075	
(AASERT-95) NONLINEAR OPTICAL SPECTROSCOPY Univ of Central Florida	Eric VanStryland	N 36 23/11/94 \$100,598	SCHLOSSBER 95-NE-076	
(AASERT-95) TIME RESOLVED SITE-SELECTIVE FOURIER-TRANSFORM SPECTROSCOPY OF DYNAMIC LASER CRYSTALS 'Univ of Central Florida	Peale Robert	N 36 23/11/94 \$109,770	SCHLOSSBER 95-NE-077	
(AASERT-95) OPTICAL INTERACTIONS WITH SINGLE MAGNETIC DOMAINS Univ of Southern California	Hellwarth Robert	N 36 23/11/94 \$109,730	SCHLOSSBER 95-NE-078	
(AASERT-95) NON-LINEAR OPTICAL DEVICES IN GAN/AlXGa1-XN FOR BLUE/ UV WAVELENGTHS Univ of New Mexico	Jain Ravi	N 36 23/11/94 \$160,600	SCHLOSSBER 95-NE-079	
(AASERT-95) FIBER LASER INTRA CAVITY SPECTROSCOPY (FLICS) Brown University	Theodore Horses	N 36 23/11/94 \$267,754	SCHLOSSBER 95-NE-080	
(AASERT-95) ASYNCHRONOUS MODELLOCKING OF FIBER LASERS Massachusetts Institute of Technology	Iopen Erich	N 36 23/11/94 \$150,845	SCHLOSSBER 95-NE-081	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 10

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	INITIATE START DATE TOT ANT	
		TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #
CAASERT-95) SHORT WAVELENGTH FIBER LASERS Univ of Illinois	Eden	J. Gary	N 36 23/11/94 \$183,472 SCHLOSSBER 95-NE-082
CAASERT-95) MICROWAVE-OPTICAL INTERACTIVE DEVICES Univ of California, Los Angeles	Fetterman	Harold	N 36 23/11/94 \$225,828 SCHLOSSBER 95-NE-083
CAASERT-95) NONLINEAR OPTICAL PROPERTIES OF PHOTODEATIVE YELLOW PROTEIN Univ of Arizona	Gibbs	Hyatt	N 36 23/11/94 \$125,000 SCHLOSSBER 95-NE-084
CAASERT-95) INTEGRATED MACH-ZEHNDER INTERFEROMETERS FOR THE STUDY OF CORRELATED PHOTON-PAIR PHENOMENA Columbia University	Osgood, Jr	Richard	N 36 23/11/94 \$150,686 SCHLOSSBER 95-NE-085
CAASERT-95) 400-1000 GHZ, SUBMICRON SCHOTTKY-COLLECTOR HETEROJUNCTION BIPOLAR TRANSISTORS Univ of California, Santa Barbara	Rodwell	Mark	N 36 23/11/94 \$211,646 SCHLOSSBER 95-NE-086
CAASERT-95) QUANTUM DOT PHOSPHORS FOR CONVENTIONAL AND PHOTONIC LASTING PIXEL APPLICATIONS Brown University	Lawandy	Nabil	N 36 23/11/94 \$284,640 SCHLOSSBER 95-NE-087
CAASERT-95) PROBABILISTIC UNCERTAINTY ANALYSIS OF LASER/MATERIAL INTERACTIONS Univ of New Mexico	Eli-Genk	Mohamed	N 36 23/11/94 \$94,208 SCHLOSSBER 95-NE-088
CAASERT-95) IRRAHFERTZ EM RADIATION FROM ELECTRO-OPTIC CRYSTALS Densselaer Polytechnic Institute	Zhang	Xi-Cheng	N 36 23/11/94 \$130,075 SCHLOSSBER 95-NE-089
CAASERT-95) DESIGN/FABRICATION OF A GUIDED WAVE OPTICAL SWITCH BASED ON PHASFO ARRAY PRINCIPLES Washington University	Krchnavek	Robert	N 36 29/11/94 \$152,358 CRAIG 95-NE-090

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 11

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE TOT AMT START DATE
(AASERT-95) ACTIVE INTEGRATED BEAM STEERING AND SWITCHING ARRAY WITH ALL OPTICAL CONTROL Univ of California, Los Angeles	Itoh	N 36 29/11/94 \$113,776	SMITH 95-NE-091	
(AASERT-95) THEORETICAL EXPLORATION AND ANALYSIS OF LONG WAVELENGTH QUANTUM WELL INFRARED DETECTORS AND LASERS Pan	Tatsumi	N 36 29/11/94 \$98,613	SMITH 95-NE-092	
(AASERT-95) ULTRA-HIGH SPEED OPTICAL-FREQUENCY TRANSLATOR BASED ON ULTRAFAST PHENOMENA IN QUANTUM WELL LASERS Bokor	Jeffrey	N 36 29/11/94 \$155,680	SMITH 95-NE-093	
(AASERT-95) STUDENT TRAINING IN HIGH-TEMPERATURE SUPERCONDUCTING ELECTRONICS Univ of Rochester	Sobolewski	N 36 29/11/94 \$124,624	WEINSTOCK 95-NE-094	
(AASERT-95) CANDIDATE ORGANIC SUPERCONDUCTORS Metzger	Robert	N 36 29/11/94 \$211,477	WEINSTOCK 95-NE-095	
(AASERT-95) HIGH TEMPERATURE SUPERCONDUCTING COMPOUNDS Goldman	Allen	N 36 29/11/94 \$150,000	WEINSTOCK 95-NE-096	
(AASERT-95) FEMTOSECOND NEAR-FIELD SPIN MICROSCOPY OF MAGNETIC/ SUPERCONDUCTING HETEROSTRUCTURES Univ of California, Santa Barbara	Auschalom	N 36 29/11/94 \$130,411	WEINSTOCK 95-NE-097	
(AASERT-95) COMPUTER MODELLING AND SIMULATION OF SINGLE-ELECTRON DEVICES State University of New York	Likharev	Konstantin		
(AASERT-95) STUDENT TRAINING IN LOW-TEMPERATURE-GROWN III-V Univ of Rochester	Fauchet	Philippe	WITT 95-NE-098	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 12

TITLE	TITLE (CONT.)	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT-95) A STUDY OF PHYSICAL MECHANISMS GOVERNING THE RELIABILITY OF ALGaAs/GaAs HETEROJUNCTION BIPOLEAR TRANSISTORS	Liou Univ of Central Florida	Juin	N 36 29/11/94 \$120,564	WITT 95-NE-100	
CAASERT-95) GAAS-GAInP SUPERLATTICES FOR INTERSUBBAND PHOTODETECTION	Razeghi Northwestern University	Manijeh	N 36 29/11/94 \$242,221	WITT 95-NE-101	
CAASERT-95) FABRICATION OF A SUB-5 NM SILICON NANO-WIRES AND NANO-DEVICES	Bokor Univ of California, Berkeley	Jeffrey	N 36 29/11/94 \$162,717	WITT 95-NE-102	
CAASERT-95) TIME RESOLVED LASER VISUALIZATION FOR ADVANCED BALLISTICS AND AERODYNAMICS RESEARCH	Anderson Univ of Florida	Chris	N 36 29/11/94 \$135,106	WITT 95-NE-103	
CAASERT-95) PHOTOASSISTED CHEMICAL VAPOR DEPOSITION FOR PACKAGING AND FABRICATION OF WIDE-BAND GAP SEMICONDUCTING DEVICES	Langell QIV of Nebraska	Marjorie	N 36 29/11/94 \$153,513	WITT 95-NE-104	
CAASERT-95) LOW DISLOCATION DENSITY III-V AND III-VI FILMS ON Si VIA SAWTOOTH-PELLET	Koledziejski Massachusetts Institute of Technology	Leslie	N 36 29/11/94 \$161,294	WITT 95-NE-105	
SOLUBILITY OF RARE EARTH IONS IN SILICA FIBERS: EFFECTS OF COMPOSITION & PROCESSING ON ATOMISTIC STRUCTURE & OPTICAL PROPERTY	Garcia, Galfan Rutgers, The State University	Stephen	N 36 29/11/94 \$450,833	POMRENKE 95-NE-106	
INTERNATIONAL SYMPOSIUM ON THE SCIENCE AND TECHNOLOGY OF ATOMICALLY ENGINEERED MATERIALS	Jens Virginia Commonwealth University	Purusottam	N 12 29/11/94 \$10,000	KELLEY 95-NE-107	
IAA94-8 MAGNETIC MATERIALS MICROCHARACTERIZATION INITIATIVE	Krishnan Lawrence Berkeley Laboratory	Kannan	N 36 30/11/94 \$7,000,000	WITT 95-NE-108	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

TITLE INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS AMOUNT	PROGRAM MANAGER	PROPOSAL #	INITIATE TOT AMT	START DATE
DAA94-8 STRUCTURES Lawrence Berkeley Laboratory	Salmeron	Miquele	N 36 30/11/94 \$3,839,000	WITT 95-NE-109			
DAA94-8 ATOMIC SCALE RESOLUTION SPECTROSCOPY APPLIED TO THIN FILM CHARACTERIZATION Univ of Wisconsin	Lagally	Max	N 36 01/12/94 \$2,685,000	WITT 95-NE-110			
DAA94-8 ATOMIC SCALE RESOLUTION SPECTROSCOPY APPLIED TO THIN FILM CHARACTERIZATION Univ of Minnesota	Palmström	Christopher	N 36 01/12/94 \$3,000,000	WITT 95-NE-111			
DAA94-8 ATOMIC SCALE RESOLUTION SPECTROSCOPY APPLIED TO THIN FILM CHARACTERIZATION Cornell University	Silcox	John	N 36 01/12/94 \$3,357,963	WITT 95-NE-112			
OPTICAL HOLE BURNING STUDIES IN GLASSES DOPED WITH DYES AND RARE-EARTH IONS Alabama A&M University	Reddy	B	N 36 07/12/94 \$376,344	CRAIG 95-NE-113			
TUNABLE ELECTRICALLY-PUMPED RARE-EARTH-DOPED NITRIDE LASERS Univ of Colorado	Feuerstein	Robert	N 36 08/12/94 \$229,725	POMRENKE 95-NE-114		\$24,824 01/04/95 \$229,725	
ANISOTROPIC RELAXATION IN GASES Columbia University	Hartmann	Sven	N 36 12/12/94 \$416,680	KELLEY 95-NE-115			
PUBLICATION OF PROCEEDINGS FOR THE 1994 APPLIED SUPERCONDUCTIVITY CONFERENCE IEEE Publishing Services	Burgmeyer	Ann	N 04 13/12/94 \$5,000	A WEINSTOCK 95-NE-116		\$5,000 15/03/94 \$5,000	
EPITAXIAL METALLIC COMPOUNDS FOR IDEAL CONTACTS TO COMPOUND SEMICONDUCTORS Univ of Minnesota	Palmitron	Christopher	N 36 13/12/94 \$638,626	A POMRENKE 95-NE-117		\$209,734 01/05/95 \$628,627	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94)

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

TITLE  
TITLE (CONT.)  
INSTITUTION

PROGRAM OF RESEARCH IN LASER OSCILLATOR PHYSICS AND LASER

DEVICE PERFORMANCE  
Stanford University

INVESTIGATOR

Siegman

PAGE 14

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
PROGRAM OF RESEARCH IN LASER OSCILLATOR PHYSICS AND LASER DEVICE PERFORMANCE Stanford University	R 36 14/12/94 \$596,463	SCHLOSSBER 95-NE-118	

A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE

Univ of Colorado

Hinton

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

Kimerling

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

SILICON OPTICAL DATA LINK

Massachusetts Institute of Technology

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

L

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

MUR94 CONSORTIUM ON HIGH ENERGY MICROWAVE SOURCES

Univ of California, Davis

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

Luhmann

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

MULTISPECTRAL TARGET DETECTION AND ESTIMATION IN THE THERMAL

INFRARED  
New York Institute of Technology

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

Choung

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

ADVANCED ELECTRONICS AND OPTO-ELECTRONICS VIA NON-STOICHIOMETRIC I

II-V MATERIALS  
Univ of Rochester

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

Wicks

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

CENTER FOR NON-STOICHIOMETRIC SEMICONDUCTORS

Univ of California, Santa Barbara

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

Mishra

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

NON-STOICHIOMETRIC SEMICONDUCTORS FOR ULTRAFAST OPTOELECTRONICS

Univ of Michigan

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

Whitaker

TITLE	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT ANT
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	N 24 14/12/94 \$557,445	CRAIG 95-NE-119	

John

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 15

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ORGANIZATION OF THE 1995 ULTRAFAST ELECTRONICS AND OPTOELECTRONICS TOPICAL MEETING Optical Society of America	Hennage David	N 12 22/12/94 \$5,000	WITH A 95-NE-128	\$5,000 01/04/95 \$5,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94)

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

DIRECTORATE OF EDUCATION, ACADEMIC AND INDUSTRY AFFAIRS

TITLE  
TITLE (CONT.)  
INSTITUTION

BIOREMEDIATION POTENTIAL OF TUNICATES

Univ of West Florida

INVESTIGATOR

Collard Jr

Sneed

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
BIOREMEDIATION POTENTIAL OF TUNICATES	N	12	A		\$70,687	
Univ of West Florida	19/10/94	\$94,249	SHELDON	95-NI-001	01/01/95	\$70,687

EFFICIENT FREQUENCY UP-CONVERSION AND DOWN-CONVERSION USING  
OPTICAL PARAMETRIC OSCILLATION

Univ of New Mexico

Moore

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
EFFICIENT FREQUENCY UP-CONVERSION AND DOWN-CONVERSION USING OPTICAL PARAMETRIC OSCILLATION	N	12	A		\$65,543	
Univ of New Mexico	19/10/94	\$68,227	SHELDON	95-NI-002	15/10/94	\$65,543

LABORATORY GRADUATE FELLOWSHIP PROGRAM

Office of Naval Research

Hughes

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
LABORATORY GRADUATE FELLOWSHIP PROGRAM	N	12	A		\$800,000	
Office of Naval Research	21/10/94	\$800,000	SHELDON	95-NI-003	01/10/94	\$800,000

INFORMATION FOR SELF-MOTION AND SPATIAL ORIENTATION

Univ of Minnesota

Pick, Jr

Herbert

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
INFORMATION FOR SELF-MOTION AND SPATIAL ORIENTATION	N	12	A		\$66,081	
Univ of Minnesota	24/10/94	\$89,211	SHELDON	95-NI-004	01/01/95	\$66,081

FORMAL METHODS APPLIED TO SYSTEM DESIGN

Syracuse Univ - Dept Elec & Computer Eng

Chin

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
FORMAL METHODS APPLIED TO SYSTEM DESIGN	N	12	A		\$88,478	
Syracuse Univ - Dept Elec & Computer Eng	01/11/94	\$117,942	SHELDON	95-NI-005	01/01/95	\$88,478

NATIONAL DEFENSE SCIENCE AND ENGINEERING GRADUATE FELLOWSHIP  
PROGRAM

Office of Naval Research

Hughes

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
NATIONAL DEFENSE SCIENCE AND ENGINEERING GRADUATE FELLOWSHIP PROGRAM	N	12	A		\$1,134,158	
Office of Naval Research	04/11/94	\$1,134,158	SHELDON	95-NI-006	01/10/94	\$1,134,158

EQUATORIAL IONOSPHERIC CAMPAIGN

Phillips Lab - Geophysics Directorate

Valenzuela

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
EQUATORIAL IONOSPHERIC CAMPAIGN	N	01	A		\$3,700	
Phillips Lab - Geophysics Directorate	23/11/94	\$3,700	ZARBO	95-NI-007	12/12/94	\$3,700

INSTRUCTIONAL DESIGN FOUNDATIONS FOR COLLABORATIVE DISTANCE  
LEARNING

Universite de Montreal

Jacqueline Bourdeau

TITLE	TYPE/MONTHS	STATUS	PROGRAM MANAGER	INITIATE PROPOSAL #	START DATE	TOT AMT
TITLE (CONT.)	RECEIVED	AMOUNT				
INSTRUCTIONAL DESIGN FOUNDATIONS FOR COLLABORATIVE DISTANCE LEARNING	N	01	A		\$2,500	
Universite de Montreal	27/12/94	\$2,500	ZARBO	95-NI-008	12/02/95	\$2,500

PAGE 1

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF LIFE SCIENCES

PAGE 1

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS PROPOSAL #	INITIATE TOT AMT
MOLECULAR APPROACH TO HYPOTHALAMIC RHYTHMS Scripps Clinic and Research Foundation	Gregor Sutcliffe	R 36 05/10/94 \$609,205	A HADDAD 95-NL-001	\$170,000 15/03/95 \$470,000
QURIP-94 HIGH-INTENSITY HIGH-RESOLUTION SOLID-STATE TUNABLE LASERS IN THE UV-IR FOR INTERFACE CHEMISTRY RESEARCH Univ of Southern California	Hanna Roisler	N 12 12/10/94 \$220,000	A BERMAN 95-NL-002	\$220,000 01/12/94 \$220,000
ORGANIC AND POLYMERIC MATERIALS: SOLID STATE PROPERTIES AND SMART MATERIALS Univ of Florida	John Reynolds	N 01 13/10/94 \$6,000	LEE 95-NL-003	
RIGID-ROD POLYPARA-PHENYLENE POLYMERS: AN EXPERIMENTAL AND THEORETICAL STUDY OF STRUCTURE/PROPERTY RELATIONSHIPS Michigan Molecular Institute	Marc Mansfield	N 36 14/10/94 \$602,505	LEE 95-NL-004	
MECHANISM AND DOSE RESPONSE FOR THE CARCINOGENIC ACTIVITY OF TRICHLOROETHYLENE IN MOUSE LIVER Medical College of Ohio	Michael Pereira	N 36 17/10/94 \$449,817	KOZUMBO 95-NL-005	
DEVELOPMENT OF ADVANCED OPTICAL MATERIALS Alabama A&M University	Reddy B.R.	N 36 17/10/94 \$423,719	ERSTFIELD 95-NL-006	
SYNTHESIS AND CHARACTERIZATION OF RARE EARTH DOPED SOL-GEL SILICA Univ of Wisconsin	Kevin Gray	N 36 18/10/94 \$215,600	ERSTFIELD 95-NL-007	
THE REGULATION OF MAMMALIAN CIRCADIAN PHYSIOLOGY BY LIGHT Univ of Virginia	Foster Russell	R 36 20/10/94 \$605,197	A HADDAD 95-NL-008	\$220,000 15/03/95 \$220,000
STUDY OF SCN NEUROCHEMISTRY USING IN VIVO BRAIN MICRODIALYSIS IN THE CONSCIOUS BRAIN: CORRELATION WITH ACTIVITY RHYTHMS Kent State University	David Glass	R 12 02/11/94 \$124,000	A HADDAD 95-NL-009	\$124,000 01/02/95 \$124,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

PAGE 2

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
HACU/MI FAST95 - FAST CENTER IN LIGHTWEIGHT STRUCTURAL MATERIALS A NO PROCESSING Clark Atlanta University	Mintz	Eric	N 12 08/11/94 \$3,598,502	LEE 95-NL-010
HBCU/HI FAST95 - AIR FORCE FAST CENTER FOR LIGHTWEIGHT STRUCTURAL MATERIALS AND PROCESSING Prairie View A&M University	Biney	Paul	N 12 08/11/94 \$3,598,099	LEE 95-NL-011
HBCU/HI FAST95 - CENTER FOR ENVIRONMENTAL RESEARCH AND TRAINING Virginia State University	Agrawal	Krishnan	N 12 08/11/94 \$3,322,843	KOZUMBO 95-NL-012
HBCU/MI FAST95 - AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATION ON, FATE AND TRANSPORT OF HAZARDOUS CHEMICALS Tuskegee University	Haille	Kebede	N 12 08/11/94 \$3,600,000	KOZUMBO 95-NL-013
HACU/MI FAST95 - ESTABLISH AN AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATION, FATE & TRANSPORT OF HAZARDOUS CHEMICALS Jackson State University	Hwang	Huey-Min	N 12 08/11/94 \$3,190,137	KOZUMBO 95-NL-014
HBCU/MI FAST95 - AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATION ON, FATE AND TRANSPORT OF HAZARDOUS CHEMICALS New Mexico State University	Shada	Ron	N 12 08/11/94 \$3,599,954	KOZUMBO 95-NL-015
HBCU/MI FAST95 AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATION • FATE AND TRANSPORT OF HAZARDOUS CHEMICALS North Carolina A&T State University	Kabadi	Vinayak	N 12 08/11/94 \$3,600,000	KOZUMBO 95-NL-016
HACU/MI FAST95 CENTER FOR ENVIRONMENTAL REMEDIATION AND EDUCATION Johnson C. Smith University	Mbamalu	Godwin	N 12 08/11/94 \$3,170,480	KOZUMBO 95-NL-017
MOLFCULAR STUDY OF 2,4-DINITROTOLUENE DEGRADATION BY BACTERIA General Atomics	Suen	Wen-Chen	N 36 08/11/94 \$540,473	KOZUMBO 95-NL-018
				\$174,637 25/04/95 \$540,473

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF LIFE SCIENCES

TITLE INSTITUTION	TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS AMOUNT	PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT	PAGE
ADVANCED SIMULATION OF METAL CLUSTERS Clark Atlanta University		Xiao-Qian Wang	N 36	A 16/11/94 \$298,808	BERMAN 95-NL-019		3
MINERALOGIC AND TEXTURAL CONTROLS ON IN-SITU BIOREMEDIACTION Louisiana State University		Ray Farrell, Jr.	N 36	A 21/11/94 \$472,187	KOZUMBO 95-NL-020		
FUNDAMENTAL MODELS FOR PREDICTING LIFETIME PERFORMANCE OF HIGH PER FORMANCE POLYMERIC MATERIALS Purdue Research Foundation		James Garuthers	N 36	A 21/11/94 \$155,114	LEE 95-NL-021	\$62,718 01/03/95 \$155,114	
SBIR95 MM-WAVE CORROSION ANALYSIS AND DETECTION Conductus, Inc.		Martens Jon	N 24	A 22/11/94 \$749,958	HEDBERG 95-NL-022		
SBIR95 INFRARED DETECTION OF ATMOSPHERIC CORROSION ON METALLIC SUR FACES Aerodyn Research Inc		Freedman A	N 24	A 22/11/94 \$499,773	HEDBERG 95-NL-023		
SBIR95 THE USE OF ELECTROCHEMISTRY AND ELLIPSOMETRY FOR IDENTIFYIN G AND EVALUATING CORROSION ON AIRCRAFT Dacco SCI Inc		Chester Dacres	N 24	A 22/11/94 \$749,033	HEDBERG 95-NL-024	\$347,000 15/05/95 \$749,033	
SBIR95 ELECTROCHEMICAL IMPEDANCE PATTERN RECOGNITION FOR DETECTION OF HIDDEN CHEMICAL CORROSION ON AIRCRAFT COMPONENTS Eltron Research Inc		Sammells Anthony	N 24	A 22/11/94 \$685,965	HEDBERG 95-NL-025	\$300,000 15/05/95 \$685,965	
SBIR95 CORROSION OF AIRCRAFT MATERIALS: CORRELATION BETWEEN NANOME TER SCALE AND MACROSCOPIC STRUCTURAL DAMAGE PARAMETERS LYNNTECH, Inc.		Gonzales-Martin Anuncia	N 24	A 22/11/94 \$594,307	HEDBERG 95-NL-026	\$294,000 15/05/95 \$594,307	
ASERT95 OPTIMIZATION OF NRA FINGERPRINTING WITH SOIL EXTRACTED ME SSenger RNA Univ of Tennessee		Fleming James	N 36	A 23/11/94 \$75,000	KOZUMBO 95-NL-027		

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

TITLE	TITLE (CONT.)	INSTITUTION	INVESTIGATOR	INITIATE DATE	START DATE	TOT AMT
TYPE/MONTHS RECEIVED	STATUS	PROGRAM MANAGER	PROPOSAL #			
N 36 1142,011	36 23/11/94 \$261,083	TANGNEY 95-NL-028				
N 36 23/11/94 \$80,857	36 23/11/94 \$80,857	ERSTFIELD 95-NL-029				
N 36 23/11/94 \$101,058	36 23/11/94 \$101,058	HADDAD 95-NL-030				
N 36 23/11/94 \$169,380	36 23/11/94 \$169,380	BERMAN 95-NL-031				
N 36 23/11/94 \$172,457	36 23/11/94 \$172,457	HEDBERG 95-NL-032				
N 36 23/11/94 \$109,296	36 23/11/94 \$109,296	LEE 95-NL-033				
N 36 23/11/94 \$283,231	36 23/11/94 \$283,231	HEDBERG 95-NL-034				
N 60 28/11/94 \$1,470,000	60 28/11/94 \$1,470,000	LEE 95-NL-035				
N 60 28/11/94 \$1,470,000	60 28/11/94 \$1,470,000	COLLINS 95-NL-036				
	EVALUATION OF LIFE SCIENCES RESEARCH PROGRAM					\$243,393
	Competitive Solicitation					\$1,470,000
	Not Identified					\$1,470,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF LIFE SCIENCES

PAGE 5

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95 IDENTIFICATION OF CRITICAL HIGH TEMPERATURE POLYMER MATERIALS IN CARBON FIBER COMPOSITE AGING MECHANISMS IN FUTURE AIR FORCE ***** Michigan State University	Roger Morgan	N 36 28/11/94 \$113,978	LEE	95-NL-037
AASERT95 INVESTIGATION OF HYPERTHERMAL ENERGY ION/SURFACE REACTION S Univ of Notre Dame	Dennin Jacobs	N 36 28/11/94 \$110,540	BERMAN	95-NL-038
AASERT95 MODELING MICROBICITY TOXICITY IN CONTINUOUS FLOW SYSTEMS New Mexico State University	Khandan Nirala	N 36 29/11/94 \$160,345	KOZUMBO	95-NL-039
AASERT95 DEVELOPMENT OF NONLINEAR OPTICS PROGRAM AT ITT Illinois Institute of Technology	Mandal Braja	N 36 29/11/94 \$162,864	LEE	95-NL-040
AASERT95 ANISOTROPIC PROPERTIES OF ORIENTED (PERFLUORINATED IONOMIC RDX) (CATIONORGANIC OXIDE) NANOCOMPOSITES Univ of Southern Mississippi	Mauritz Kenneth	N 36 29/11/94 \$218,005		95-NL-041
AASERT95 SYNTHESIS OF CARBON PRECURSORS CONTAINING B, N AND O SPECIES FOR THE PREPARATION OF OXIDATIVELY STABLE CARBON Chung T.C. Mike	Pennsylvania State University	N 36 29/11/94 \$117,226	HEDBERG	95-NL-042
AASERT95 AUGMENTATION AWARD FOR TRAINING IN METALLIC CORROSION SCIENCE Univ of Chicago	Sibener Steven	N 36 29/11/94 \$149,000	HEDBERG	95-NL-043
AASERT95 TRANSFERABLE VIBRATIONAL FORCE FIELDS Univ of Arkansas	Pulay Peter	N 36 29/11/94 \$79,474	BERMAN	95-NL-044
AASERT95 EFFECT OF EXERCISE ON CORE BODY TEMPERATURE AND PLASMA ME LATDNIN RHYTHMS Harvard University	Czeisler Charles	N 36 29/11/94 \$218,734	HADDAD	95-NL-045

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

PAGE 6

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT		STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
		N	36		
AASERT95 METALLO-CARBONORENES -- STUDY OF A NEW CLASS OF MATERIALS AND SOME OTHER RELATED TRANSITION METAL NITRIDES AND SILICIDES	Castleman, Jr. A.W.	29/11/94 \$201,913	BERMAN 95-NL-046		
AASERT95 SPECTROSCOPY OF MIXED METAL CLUSTERS ATTACHED TO LARGE H2 OR HE CLUSTERS	Giacinto Scoles	29/11/94 \$156,724	BERMAN 95-NL-047		
AASERT95 BASIC STUDIES ON THE CATALYTIC EFFECTS OF SOLID WEAR DEBRIS ON LUBRICANT DEGRADATION ON THE SILICON NITRIDE-M-50 STEEL ***	James Adair	29/11/94 \$103,217	ERSTFIELD 95-NL-048		
AASERT95 VIBRATIONAL SPECTROELECTROCHEMISTRY OF MOLTEN HALIDE SYSTEMS	Gleb Kamantov	29/11/94 \$75,781	HEDBERG 95-NL-049		
AASERT95 RESPONSE OF FLORIDA GRASSHOPPER SPARROW AND SNAIL KITE FOODS TO FIRE ANT REDUCTION ON AVON PARK BOMBING RANGE, FLORIDA	Stephen Demarais	29/11/94 \$132,894	KOZUMBO 95-NL-050		
AASERT95 AUGEMENTATION TO GRANT AFOSR-94-1-0306	Ronald Crawford	29/11/94 \$130,820	KOLUMBO 95-NL-051		
THEORETICAL AND EXPERIMENTAL STUDIES OF AUDITORY PROCESSING	Shahram Univ of Maryland	R 06/12/94 \$462,971	COLLINS 95-NL-052		
MELATONIN, THE PINEAL GLAND AND CIRCADIAN RHYTHMS	A HADDAD 95-NL-053	R 07/12/94 \$476,873	\$121,514 01/05/95 \$221,514		
AASERT95 POLED POLYMER PROCESSING FOR CASCADED NONLINEARITIES	Cassone Stegeman	N 07/12/94 \$136,559	LEE 95-NL-054		

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

PAGE 7

TITLE INSTITUTION	TITLE (CONT.) INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95 AGING AND DURABILITY OF HIGH TEMPERATURE ELECTRICAL WIRING Washington University	Wolf Clarence	N 36 07/12/94 \$196,645	LEE 95-NL-055	
AASERT95 CHARACTERIZATION OF OPTICAL PROPERTIES OF THIN NONLINEAR OPTICAL POLYMER FILMS Purdue University	Lackritz Hillary	N 36 07/12/94 \$93,569	LEE 95-NL-056	
AASERT95 STABILITY OF EPXIDATION FRONTS Univ of Southern Mississippi	Pojman John	N 36 07/12/94 \$141,792	LEE 95-NL-057	
AASERT95 CONJUGATED POLYMERS WITH DEGENERATE GROUND STATE: THE ROU TE TO HIGH PERFORMANCE MOLECULAR POLYMERS Univ of California, Santa Barbara	Heeger Alan	N 36 07/12/94 \$216,305	LEE 95-NL-058	
AASERT95 NEW PHOTOREFRACTIVE POLYMERS EXHIBITING ENHANCED PERFORMA NCE Univ of Chicago	Luping Tu	N 36 07/12/94 \$132,137	LEE 95-NL-059	
AASERT95 PHOTOREFRACTIVE POLYMERS FOR PHOTONIC APPLICATIONS Univ of Arizona	Peyghambarian Nasser	N 36 07/12/94 \$129,000	LEE 95-NL-060	
AASERT95 FUNDAMENTAL MODELS FOR PREDICTING LIFETIME PERFORMANCE OF HIGH PERFORMANCE POLYMERIC MATERIALS Purdue University	Caruthers James	N 36 07/12/94 \$184,962	LEE 95-NL-061	
AASERT95 DEVELOPMENT OF ADVANCED PHOTONIC MATERIALS Univ of Southern California	Dalton Larry	N 36 07/12/94 \$283,231	LEE 95-NL-062	
AASERT95 SUPPORT IN AUXETIC POLYMERS Univ of Southern Mississippi	Griffin Anselm	N 36 07/12/94 \$193,649	LEE 95-NL-063	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

PAGE 8

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95 COGNITIVE AND NEUROSCIENCE TRAINING IN MOTOR CONTROL Univ of Maryland	Steinman Robert	N 36 08/12/94 \$367,652	COLLINS 95-NL-064	
AASERT95 VISUALLY-GUIDED NAVIGATION Univ of California, Berkeley	Banks Martin	N 36 08/12/94 \$166,180	COLLINS 95-NL-065	
AASERT95 USING SPATIAL FRAMEWORKS IN PERCEPTION AND MEMORY Northeastern University	Bryant David	N 36 08/12/94 \$70,151	COLLINS 95-NL-066	
AASERT95 INFLUENCE OF MULTISENSORY STIMULATION ON OCULAR MOTOR PERFORMANCE Univ of Pittsburgh	Furman Joseph	N 36 08/12/94 \$179,678	COLLINS 95-NL-067	
AASERT95 STUDENT TRAINING FOR RESEARCH ON AUDITORY ORIENTATION Yale University	Lackner James	N 36 08/12/94 \$25,877	COLLINS 95-NL-068	
AASERT95 MOLECULAR ANALYSIS OF NITROAROMATIC HYDROCARBON DEGRADATION On Any Gram Positive Bacteria Rutgers - The State University	Lylstra Gerben	N 36 08/12/94 \$163,925	KOZUMBO 95-NL-069	
AASERT95 RESEARCH TRAININGS OF THE EFFECTS OF TOXIC SUBSTANCES ON THE LUNGS Univ of Arizona	Witten Mark	N 36 08/12/94 \$192,736	KOZUMBO 95-NL-070	
AASERT95 EFFECTS OF MICROBIAL POPULATION INTERACTIONS ON THE MINERALIZATION AND MINERALIZATION OF JET FUEL Univ of West Florida	Snyder Richard	N 36 08/12/94 \$226,182	KOZUMBO 95-NL-071	
AASERT95 XENOBIOCTIC METABOLISM AND ACTION IN ENDOOTHELITUM Woods Hole Oceanographic Institute	Stegeman John	N 36 08/12/94 \$123,301	KOZUMBO 95-NL-072	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

TITLE FILE (CONE.) INSTITUTION	INVESTIGATOR	PAGE	TYPE/MONTHS RECEIVED	STATUS PROPOSAL #	PROGRAM MANAGER	INITIATE START DATE	TOT AMT
CELL CULTURE AND TRANSPLANTATION OF THE SUPRACHIASMATIC CIRCADIAN PACEMAKER Univ of Toronto	Martin Ralph	9	R 36 08/12/94 \$442,703	HADDAD 95-NL-073			
ASSESSING THE BIOAVAILABILITY OF MICELLAR-PHASE, LOW-SOLUBILITY HY DROCARBONS, DURING SURFACTANT-ENHANCED BIOREMEDITION Princeton University	Peter Jaffe		R 36 08/12/94 \$341,168	KOZUMBO 95-NL-074			
MICROBIAL AND SORPTIVE MECHANISMS CONTROLLING THE FATE OF FUEL COM ONENTS IN SOIL Cornell University	Eugene Madsen		R 36 08/12/94 \$585,157	A KOZUMBO 95-NL-075			
CHANGES IN BIODEGRADATION AND TOXICITY BECAUSE OF POLLUTANT SEQUES RATION IN SOIL Cornell University	Alexander Martin		N 36 08/12/94 \$457,019	A KOZUMBO 95-NL-076			
THE NEURAL BASIS AND FUNCTIONAL CHARACTERISTICS OF PERIPHERAL VIST JN Oxford University	Malcolm Young		N 36 08/12/94 \$310,050	COLLINS 95-NL-077			
LEAD-FREE AND GOLD-FREE MICROELECTRONIC SOLDERS Univ of California, Los Angeles	Alfred Yue		N 12 09/12/94 \$150,000	HEDBERG 95-NL-078			
AASERT95 THEORETICAL STUDIES OF ENERGETIC MATERIALS Oklahoma State University	Donald Thompson		N 36 09/12/94 \$170,944	BERMAN 95-NL-079			
AASERT95 SHOCK INITIATION OF ENERGETIC MATERIALS: THE FIRST FEW NA NOSECONDS Univ of Illinois - Urbana Champaign	Dlett		N 36 09/12/94 \$207,000	BERMAN 95-NL-080			
AASERT95 EXTENSIONS OF THE EQUATION-OF-MOTION COUPLED CLUSTER METH OD FOR EXCITED STATES Univ of Florida	Rodney Bartlett		N 36 09/12/94 \$103,751	BERMAN 95-NL-081			

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

PAGE 10

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT	
				N	36
AASERT95 THEORETICAL STUDIES OF MET-CARS: METALLO-CARBOHEDRENES Univ of Georgia	Schaefer III Henry	N 09/12/94 \$264,748	BERMAN 95-NL-082		
AASERT95 ULTRAFAST DYNAMICS OF ENERGETIC ADDITIVES IN O2 CLUSTERS: GRADUATE TRAINING IN CHEMICAL PHYSICS AT JILA Univ of Colorado	Lineberger W. Carl	N 09/12/94 \$236,997	BERMAN 95-NL-083		
AASERT95 LARGE AMPLITUDE MOTIONS IN POLYATOMIC MOLECULES Massachusetts Institute of Technology	Field Robert	N 09/12/94 \$260,956	BERMAN 95-NL-084		
AASERT95 ENERGY TRANSFER PROCESSES IN IODINE LASERS Emory University	Heaven Michael	N 09/12/94 \$73,324	BERMAN 95-NL-085		
AASERT95 A CELLULAR AND COMPUTATIONAL ANALYSIS OF THE ROLE OF SHORT-TERM AND LONG-TERM INITIATION IN INFORMATION PROCESSING IN ANIMAL CELLS Yale University	Carey Thomas	N 12/12/94 \$105,601	HADDAD 95-NL-086		
AASERT95 BASIC MECHANISMS AND IMPLICATIONS OF NON-PHOTIC ENTRAINMENT OF CIRCADIAN RHYTHMICITY Univ of Chicago	Van Cauter Eve	N 12/12/94 \$392,663	HADDAD 95-NL-087		
AASERT95 CONTROL OF CIRCADIAN BEHAVIOR BY LIGHT AND TRANSPLANTED SUPERCHARACTERISTIC NUCLEI Univ of Virginia	Foster Russell	N 12/12/94 \$163,454	HADDAD 95-NL-088		
AASERT95 BIOMOLECULAR MASK FORMATION USING UV PATTERNED SAM FILMS Univ of Colorado	Douglas Lecturer	N 12/12/94 \$140,744	HEDBERG 95-NL-089		
AASERT95 RESEARCH TRAINING FOR THE COMPUTER-AIDED MOLECULAR DESIGN OF SYNTHETIC CLICERS BASED ON NATURAL ANTIREFLEXES Univ of Missouri	Welsh William	N 12/12/94 \$140,535	HEDBERG 95-NL-090		

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF LIFE SCIENCES

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95 SMART MATERIALS BY EXTRUSION SOLID FREE-FORM FABRICATION  Univ of Arizona	Calvert Paul	N 36 12/12/94 \$152,240	HEDBERG 95-NL-091	
AASERT95 ESTER ELIMINATION REACTIONS AS A METHOD TO CONTROL STRUCTURAL EVOLUTION  Univ of New Mexico	Hampden-Smith Mark	N 36 12/12/94 \$167,314	ERSTFELD 95-NL-092	
AASERT95 NANOMETRIC STUDIES OF THE STRUCTURE AND TRIBOLOGY OF CARBON NITRIDE MATERIALS  Harvard University	Lieber Charles	N 36 12/12/94 \$169,473	ERSTFELD 95-NL-093	
AASERT95 SURFACE CRACK PROPAGATION UNDER THE INFLUENCE OF LUBRICATING FLUIDS  Univ of Illinois	Hsieh Jimmy	N 36 12/12/94 \$264,393	ERSTFELD 95-NL-094	
AASERT95 2-DIMENSIONAL ISLANDS AS TEMPLATES FOR QUANTUM COLUMNS  Univ of California, San Diego	Kunsel Andrew	N 36 12/12/94 \$134,741	ERSTFELD 95-NL-095	
MULTIGRID METHOD FOR LARGE SCALE ELECTRONIC STRUCTURE OF MATERIALS  Univ of Cincinnati	Beck Thomas	N 12 12/12/94 \$25,000	BERMAN 95-NL-096	
POLYMER ELECTRO-OPTIC DEVICES AND FOUNDRY  ROI Technology	Jen Alex K-Y	N 36 14/12/94 \$1,200,000	LEE 95-NL-097	
ELEVENTH INTERDISCIPLINARY LASER SCIENCE CONFERENCE (ILS-XI)  Univ of Arizona	Peyghambarian Nasser	N 12 20/12/94 \$5,000	BERMAN 95-NL-098	
ELEVENTH INTERDISCIPLINARY LASER SCIENCE CONFERENCE (ILS-XI)  Univ of Arizona	Peyghambarian Nasser	N 12 20/12/94 \$5,000	BERMAN 95-NL-099	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF LIFE SCIENCES

PAGE 12

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CONFERENCE ON THE DYNAMICS OF MOLECULAR COLLISIONS Univ of California, Berkeley		N 06 20/12/94 \$11,356	A BERMAN 95-NL-100	\$11,356 01/03/95
ORGANIZATION OF THE 1995 MODERN SPECTROSCOPY OF SOLIDS, LIQUIDS AND GASES TOPICAL Optical Society of America	Hennage David	N 12 21/12/94 \$10,000	D BERMAN 95-NL-101	
SYNTHESIS AND MANIPULATION OF NANOSCALE ELECTROACTIVE OBJECTS AND THEIR USE IN INFORMATION STORAGE North Carolina State University	Gorman Christopher	N 36 21/12/94 \$439,309	D LEE 95-NL-102	
A TRI-SERVICE WORKSHOP ON BIOAVAILABILITY OF ORGANIC CONTAMINANTS IN SOILS AND SEDIMENTS Rutgers, The State Univ., Coll of Engineering	Kosson David	N 12 22/12/94 \$61,885	A KOZUMBO 95-NL-103	\$20,628 15/03/95
PRET95 HOMEOSTATIC & CIRCADIAN REGULATION OF WAKEFULNESS DURING JET LAG AND SLEEP DEPRIVATION: EFFECT OF WAKE-PROMOTING COUNTERMEASURES Univ of Pennsylvania	Dinges David	N 36 23/12/94 \$2,977,246	A HADDAD 95-NL-104	\$549,680 28/04/95 \$2,889,680
PRET95 NIGHT WORK, JET LAG AND SLEEP DEPRIVATION: PHYSIOLOGY AND COUNTERMEASURES Univ of Chicago	Cauter Eve	N 36 23/12/94 \$3,233,475	A HADDAD 95-NL-105	
PRET95 AMELIORATING THE EFFECTS OF JET LAG AND SLEEP DEPRIVATION Univ of Pittsburgh	Moore Robert	N 36 23/12/94 \$3,599,040	A HADDAD 95-NL-106	
DIRECT WRITING OF ELECTRICALLY CONDUCTIVE ORGANIC STRUCTURES -- AP PLICATIONS IN NANOLITHOGRAPHY North Carolina State University	Gorman Christopher	N 36 23/12/94 \$479,309	D LEE 95-NL-107	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 1

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
COMPUTATIONAL METHODS FOR THE SIMULATION OF NONCONVEX VARIATIONAL PROBLEMS FOR APPLICATIONS TO SMART MATERIALS Central State University	Turner, Jr.	N 36 05/10/94 \$600,000	A NACHMAN 95-NM-001	\$200,000 01/05/95 \$600,000
INVESTIGATIONS OF CRITICAL PROBLEMS IN ROUGH SURFACE SCATTERING Virginia Polytechnic Inst & State Univ	Gary Brown	N 36 05/10/94 \$179,993	A NACHMAN 95-NM-002	
CONFERENCE ON DYNAMICAL SYSTEMS AND APPLICATIONS Society for Industrial & Applied Math	William Kolata	N 12 05/10/94 \$10,000	A NACHMAN 95-NM-003	
CIRCUIT COVERS, INTEGER FLOWS AND PETERSEN MINOR - RESEARCH IN GRAPH THEORY West Virginia University Research Corp	Ihang Cun-Quan Gambsori	N 36 05/10/94 \$83,721	A GLASSMAN 95-NM-004	
PARALLEL ADAPTIVE METHODS FOR MODELING NONEQUILIBRIUM FLUIDS AND PLASMAS Univ of Michigan	Famas	N 12 12/10/94 \$50,000	A JACOBS 95-NM-005	\$50,000 01/03/95 \$50,000
VECTOR-VALUED MALVAR WAVELETS Air Force Institute of Technology	SUTER BRUCE	N 12 26/10/94 \$22,000	A SJOGREN 95-NM-006	\$5,848 01/11/94 \$22,000
BOARD ON EARTH SCIENCES AND RESOURCES National Academy of Sciences	Jonathan Price	N 12 31/10/94 \$15,000	A DICKINSON 95-NM-007	\$15,000 01/04/95 \$15,000
THE NONLINEAR CONTROL THEORY OF COMPLEX MECHANICAL SYSTEMS Boston University	Baillieu John	N 36 01/11/94 \$283,665	A JACOBS 95-NM-008	\$85,101 15/06/95 \$172,535
AN EXPERIMENTAL STUDY OF THE NON-LINEAR RHEOLOGY OF ROCK AT MODERATE STRAINS New England Research Inc.	Boitnott Greg	N 20 07/11/94 \$140,591	A DICKINSON 95-NM-009	\$44,986 01/02/95 \$140,591

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 2

TITLE	TITLE (CONT.)	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS	PROGRAM MANAGER	INITIATE START DATE	TOT AMT
SAMPLED-DATA SYSTEMS: THEORY AND APPLICATIONS		Kabamba	N 36 08/11/94 \$482,468	JACOBS 95-NM-010			
UNIV OF MICHIGAN		Pierre					
EQUATIONS OF MOTION OF DILUTE GASES WITH APPLICATIONS TO FLIGHT AT HIGH ALTITUDES	CAMBRIDGE HYDRODYNAMICS INCORPORATED	Isaac	N 24 08/11/94 \$135,361	JACOBS 95-NM-011			
ROBUST FIXED-ARCHITECTURE	GEORGIA INSTITUTE OF TECH	Haddad	N 36 08/11/94 \$234,017	JACOBS 95-NM-012			
(CHACU/MI FAST95) A TEST BED FOR C3I FAULT TOLERANT DISTRIBUTED COMPUTING	ALABAMA A&M UNIVERSITY	Terrill	N 36 09/11/94 \$3,282,122	LUGINBUHL 95-NM-013			
SINGULAR PERTURBATION FOR NONLINEAR DYNAMICAL SYSTEMS	SOUTHERN METHODIST UNIVERSITY	Haberman	N 36 09/11/94 \$121,771	NACHMAN 95-NM-014			
APPLICATION AND DEVELOPMENT OF NEW DEOS TECHNIQUES TO MANUFACTURING PROCESS CONTROL	UNIV OF CINCINNATI	albert	N 36 09/11/94 \$295,011	GLASSMAN 95-NM-015			
INTERNATIONAL CONGRESS ON INDUSTRIAL AND APPLIED MATHEMATICS	SOCIETY FOR INDUSTRIAL & APPLIED MATH	Kolata	N 12 09/11/94 \$85,300	JACOBS 95-NM-016			
SURVIVABLE NETWORKS, PLOWS AND RELATED PROBLEMS	WEST VIRGINIA UNIVERSITY RESEARCH CORP	Lai	N 36 02/11/94 \$80,543	GLASSMAN 95-NM-017			
PATTERN FORMATION IN NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS	UNIV OF CENTRAL FLORIDA	S. Roy	N 24 09/11/94 \$85,296	NACHMAN 95-NM-018			

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 3

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
MODELING AND CONTROL OF NONLINEAR SYSTEMS Univ of Colorado	Hauser	N 09/11/94 \$74,418	JACOBS 95-NM-019	
(HBCU/MI FAST95) HOWARD UNIVERSITY AIR FORCE FUTURE AEROSPACE SCIENCE & TECHNOLOGY CENTER (CHUFFAST) Howard University	Don	N 09/11/94 \$3,585,674	LUGINBUHL 95-NM-020	
COMPUTATIONAL MODELING OF ELECTROMAGNETIC WAVES IN LINEARLY DISPERSIVE INHOMOGENEOUS DIELECTRICS University of Idaho	Jeffery	N 09/11/94 \$25,308	NACHMAN 95-NM-021	
EFFICIENT ALGORITHMS AND DATA STRUCTURES IN GEOMETRIC DESIGN Purdue Research Foundation	Chandrarat Balaji	N 10/11/94 \$380,582	GLASSMAN 95-NM-022	
GRAVITY WAVE MODELING & AIRGLOW APPLICATIONS Univ of Colorado	Fritts David	N 10/11/94 \$208,955	KROLL 95-NM-023	\$102,000 01/05/95 \$208,955
ANALYSIS, COMPUTATION & APPLICATION IN NONLINEAR MECHANICS Univ of Maryland	Haddock John	N 10/11/94 \$475,300	NACHMAN 95-NM-024	\$120,300 15/02/95 \$475,300
(SBIR95) RADSAK: A NEW TECHNOLOGY FOR HIGH PERFORMANCE METEOROLOGICAL APERTURE SYNTHESIS RADIOMETRY Radsar Group	Edelsohn Charles	N 17/11/94 \$662,749	KROLL 95-NM-025	
(SBTR95) DEVELOPMENT OF A NOVEL WIND LIDAR Science & Engineering Services	Lee	N 17/11/94 \$355,453	KROLL 95-NM-026	
(SBIR95) A SMALL AUTONOMOUS AIRCRAFT FOR REMOTE SENSING OF THE ATMOSPHERE The Insitu Group	McGeer Ted	N 17/11/94 \$749,505	KROLL 95-NM-027	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 4

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(CSIR95) MULTIDIMENSIONAL LOGISTICS NETWORK MODELING USING MULTIDIMENSIONAL SPREADSHEET & MATHEMATICAL PROGRAMMING SOFTWARE CAPS Logistics, Inc.	William	N 24 17/11/94 \$747,763	GLASSMAN 95-NM-028	
(CSIR95) USER-FRIENDLY MICROCOMPUTER INTERFACE WITH OPTIMIZATION LANGUAGES Primal Solutions, Inc.	Savage	N 24 17/11/94 \$750,000	GLASSMAN 95-NM-029	
IMPROVED MULTIVARIATE QUALITY CONTROL PROCEDURES Georgia Institute of Tech	Haytor	N 36 18/11/94 \$134,438	D SJOGREN 95-NM-030	
DISTRIBUTED DETECTION THEORY AND DATA FUSION Syracuse Univ - Dept Elec & Computer Eng	Varshney	N 36 18/11/94 \$66,565	D SJOGREN 95-NM-031	
NUMERICAL TREATMENT OF RANDOM NEURAL NETWORKS AND APPLICATION Clark Atlanta University	Sambandham	N 36 18/11/94 \$167,532	D SJOGREN 95-NM-032	
TWO DIMENSIONAL ADAPTIVE NONLINEAR DIGITAL FILTERS Univ of Colorado at Denver	Boase	N 36 18/11/94 \$210,786	D SJOGREN 95-NM-033	
NONLINEAR ROBUST CONTROL: THEORY AND APPLICATIONS Carnegie-Mellon University	McNamee	N 36 18/11/94 \$87,091	A JACOBS 95-NM-034	\$23,061 01/04/95 \$87,091
WAVELET ANALYSIS IN POLAR COORDINATES Florida Atlantic University	Johnston	N 36 18/11/94 \$264,075	D SJOGREN 95-NM-035	
MECHANISMS FOR SCALABLE OBJECT SHARING IN MIND MULTIPROCESSING SYSTEMS Univ of North Carolina	Anderson	N 36 18/11/94 \$282,914	LUGINBUHL 95-NM-036	
JAMES	James			

## REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 5

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS AMOUNT	PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ALGORITHMS AND SOFTWARE FOR COMBINED H2/H-INFINITY CONTROL		N 36	JACOBS 18/11/94 \$190,739	JACOBS 95-NM-037	
Virginia Polytechnic Inst & State Univ	Layne				
COMPUTATIONAL ALGORITHMS BASED ON HAMILTON'S PRINCIPLE		N 36	JACOBS 18/11/94 \$462,457	JACOBS 95-NM-038	
Dartmouth College	H. Ralph Lewis				
THE PHYSICAL ORIGIN OF IN-CLOUD LIGHTNING PROCESSES DETERMINED FROM MULTIPLE-STATION WIDEBAND ELECTRIC FIELD MEASUREMENTS		N 36	KROLL 18/11/94 \$152,297	\$152,297	01/01/95
Univ of Florida	Eason				\$152,297
OPTIMIZATION PROBLEMS IN MULTISENSOR/MULTITARGET TRACKING		N 36	GLASSMAN 21/11/94 \$183,517	\$58,730	01/04/95
Colorado State University	Aubrey Paare				\$183,517
ON ROBUST STABILITY OF INTERVAL POLYTOPES OF CHARACTERISTIC POLYNOMIALS		N 24	JACOBS 21/11/94 \$118,079	JACOBS 95-NM-041	D
Ryght State University	Pujara L.				
MANAGING THE CHOICE OF SURROGATE VARIATES AND THE USE OF APPROXIMATION MODELS TO OPTIMIZE EXPENSIVE FUNCTIONS		R 36	GLASSMAN 21/11/94 \$450,756	\$280,701	01/03/95
Rice University	Dennis, Jr. John				\$450,756
ESTIMATION WITH MULTISENSOR-MULTISCAN DETECTION FUSION		N 36	GLASSMAN 21/11/94 \$193,431	\$59,238	01/03/95
Univ of Connecticut	Yaakov Bar-Shalom				\$182,051
INTERNATIONAL CONFERENCE ON COMPLEMENTARITY PROBLEMS		N 12	GLASSMAN 21/11/94 \$52,200	D	
Johns Hopkins University	Pang Jong-Shi				
STOCHASTIC MODELS FOR RELIABILITY OF SYSTEMS WITH DEPENDENCIES AMONG COMPONENTS		N 36	SJOGREN 21/11/94 \$247,566	SJOGREN 95-NM-045	
Univ of South Carolina	Lynch James				

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 6

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
MODELING & COMPUTATION OF FREE SURFACE FLOWS OF LIQUID CRYSTAL POLYMERS & INTERFACIAL INSTABILITY Indiana University-Purdue Univ at Indpls	Wang	Q1	N 36 21/11/94 \$80,537	NACHMAN 95-NM-046
NONPARAMETRIC METHODS FOR QUALITY CONTROL & RELIABILITY Florida State University	Hollander	Myles	N 24 21/11/94 \$118,781	SJOGREN 95-NM-047
ALGORITHMS FOR GEOMETRIC COMPUTATIONS IN SOLID MODELERS FOR ELECTRONIC PROTOTYPING Univ of Michigan	Dutta	Debasish	N 36 21/11/94 \$381,299	GLASSMAN 95-NM-048
DEVELOPMENT AND TESTING OF PHYSICAL ALGORITHMS FOR CLOUD FORCASTING ON THE MESOSCALE Colorado State University	Cotton	William	N 36 21/11/94 \$296,326	KROLL 95-NM-049
MULTIDIMENSIONAL PROBLEMS IN DYNAMIC PLASTICITY State University of New York	Pitman	E. Bruce	N 60 21/11/94 \$213,593	NACHMAN 95-NM-050
OPERATING SYSTEMS FOR SCALABLE MASSIVELY PARALLEL COMPUTERS Univ of California, Irvine	Scherson	Isaac	N 36 21/11/94 \$299,385	LUGINBUHL 95-NM-051
INTERNATIONAL CONFERENCE ON CONTROL AND INFORMATION 1995 Univ of Illinois - Chicago	Tan	Stephen S. T.	N 12 21/11/94 \$5,000	JACOBS 95-NM-052
AASERT95/USAF ADVANCED TACTICAL COMMUNICATIONS SIGNAL PROCESSING Univ of Kansas, Center for Research	Prescott	Glenn	N 36 22/11/94 \$128,237	SJOGREN 95-NM-053
AASERT95/ACTIVE CONTROL OF SLOSH Univ of Michigan	Bernstein	Dennis	N 36 22/11/94 \$125,280	JACOBS 95-NM-054

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 7

TITLE	TITLE (CONT.)	INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS	PROGRAM MANAGER	PROPOSAL #	INITIATE START DATE	TOT AMT
AASERT95/DETERMINATION OF LIGHTNING PARAMETERS FROM WIDEBAND ELECTRIC FIELDS RECORDED AT MULTIPLE STATIONS		UNIV of Florida	Thomson	N 36 22/11/94 \$114,382	KROLL				
AASERT95/BAYESIAN NETWORK MODELS FOR PATTERN AND PLAN RECOGNITION		UNIV of Michigan	Wellman	N 36 22/11/94 \$114,654	WAKSMAN				
AASERT95/GRADUATE STUDENT RESEARCH ON DESIGN & IMPLEMENTATION OF FAULT-TOLERANT ASYNCHRONOUS SYSTEMS		No. Y. U. Courant Institute Math Science	Kedem	N 36 22/11/94 \$274,442	LUGINBUHL				
AASERT95/RUN-TIME ASSURANCE FOR DISTRIBUTED SENSOR MONITORING		Univ of Missouri	McMillin	N 36 22/11/94 \$175,214	LUGINBUHL				
AASERT95/IMPROVED LOCATION, GREEN'S FUNCTIONS, & SOURCE DISCRIMINATION FOR REGIONAL EVENTS IN KOREA AND IPAN		Pennsylvania State University	Alexander	N 36 22/11/94 \$130,643	DICKINSON				
AASERT95/FIRST ORDER CORRECTION TO EIGENVALUES OF PERIODIC COMPOSITES		Rutgers - The State University	Vogelius	N 36 22/11/94 \$28,797	MACHMAN				
AASERT95/ADAPTED WAVEFORM ANALYSIS FOR TARGET RECOGNITION DISCRIMINATION AND FEATURE EXTRACTION		Yale University	Cofman	N 36 22/11/94 \$209,863	SJOGREN				
AASERT95/SAAR IMAGE-TO SITE MODEL REGISTRATION		Univ of Maryland	Chellappa	N 36 22/11/94 \$100,172	SJOGREN				
AASERT95/RESEARCH TRAINING IN SYSTEM SUPPORT FOR MULTIMEDIA APPLICATIONS ON MOBILE HOSTS		Carnegie-Mellon University	Satyanaarayanan	N 36 22/11/94 \$108,593	LUGINBUHL				

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 8

TITLE	TITLE (CONT.)	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/NAVIGATING IN DISCRETE ENVIRONMENTS		Khuller Samir	N 36 22/11/94 \$102,213	SJOGREN 95-NM-064	
AASERT95/ MODELLING NOVEL WAVELENGTH AND ULTRA-SHORT TIME-SCALE PHENOMENA IN NONLINEAR OPTICS	Univ of Maryland	Moloney Jerome	N 36 22/11/94 \$227,389	NACHMAN 95-NM-065	
AASERT95/NONLINEAR ROBUST CONTROL THEORY AND APPLICATIONS	California Institute of Technology	Doyle John	N 36 22/11/94 \$130,512	JACOBS 95-NM-066	
AASERT95/IMPROVED PARAMETERIZATIONS OF CONVECTION AND CLOUD COVER	State University of New York - Risch Fnd	Walcek Chris	N 36 22/11/94 \$6,116,216	KROLL 95-NM-067	
AASERT95/ADAPTIVE AND PARALLEL COMPUTATIONAL TECHNIQUES IN MATERIALS SCIENCE	Rensselaer Polytechnic Institute	Flaherty Joseph	N 36 22/11/94 \$129,481	JACOBS 95-NM-068	
AASERT95/Joint CHANNEL POWER AND BASE STATION ASSIGNMENT FOR EFFICIENT WIRELESS ACCESS	Polytechnic University	Tassiulas Leandros	N 36 22/11/94 \$172,990	SJOGREN 95-NM-069	
AASERT95/HIGH ORDER ACCURACY COMPUTATIONAL METHODS IN AERODYNAMICS USING PARALLEL ARCHITECTURES	Brown University	Gottlieb David	N 36 22/11/94 \$124,969	JACOBS 95-NM-070	
AASERT95/ENABLING KNOWLEDGE SHARING AMONG DISTRIBUTED APPLICATIONS	North Carolina A&T State University	Golstein Golstein	N 36 22/11/94 \$59,911	LUGINBUHL 95-NM-071	
AASERT95/DYNAMICAL SYSTEMS TECHNIQUES IN NONLINEAR OPTICS	Brown University	Jones Christopher Jones	N 36 22/11/94 \$124,969	NACHMAN 95-NM-072	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 9

TITLE INSTITUTION TITLE (CONT.-)	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/ADAPTIVE RECONFIGURATION ALGORITHMS FOR REAL-TIME DISTRIBUTED SYSTEMS Univ of Massachusetts	Ganz	Aura	N 36 22/11/94 \$144,400	LUGINBUHL 95-NM-073
AASERT95/THE ROLE OF FUNCTIONALITY IN RECOGNIZING/USING ARTIFACTS Univ of South Florida	Bosyer	Kevin	N 36 22/11/94 \$156,419	WAKSMAN 95-NM-074
AASERT95/INTEGRATED LEARNING SYSTEMS AND DYNAMIC RECOGNITION FOR COMPUTER VISION George Mason University	Michalski	Ryszard	N 36 22/11/94 \$219,431	WAKSMAN 95-NM-075
AASERT95/GRAFPHICAL USER INTERFACES FOR E/FIT, MACH 2 AND MACH 3 CODES Univ of Washington	Eberhardt	O. Scott	N 36 22/11/94 \$186,712	JACOBS 95-NM-076
AASERT95/BLIND ADAPTIVE BEAMFORMING FOR MOBILE COMMUNICATIONS Purdue Research Foundation	Zoltowski	Michael	N 36 22/11/94 \$75,364	SJOGREN 95-NM-077
AASERT95/ROBUST ADAPTIVE CONTROL AND IT'S APPLICATIONS TO MISSILE AUTOPILOTS Louisiana State University	Gu	Guokiang	N 36 22/11/94 \$64,960	JACOBS 95-NM-078
AASERT95/DYNAMICS OF SOLITARY WAVE PULSES NEAR THE ZERO-DISPERSION WAVELLENGTH IN OPTICAL FIBERS Massachusetts Institute of Technology	Akyas	Iriantashylos	N 36 22/11/94 \$124,565	NACHMAN 95-NM-079
AASERT95/REMOTE SENSING AND ICE MICROPHYSICS MODELING INVOLVING CIRRUS CLOUDS Univ of Utah	Liou	K-	N 36 22/11/94 \$154,532	KROLL 95-NM-080
AASERT95/MULTIRESOLUTION METHODS IN SPACE-TIME TRACKING AND IMAGE RECONSTRUCTION Massachusetts Institute of Technology	Willsky	Alan	N 36 22/11/94 \$148,874	SJOGREN 95-NM-081

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 10

TITLE  
TITLE (CONT.)  
INSTITUTION

AASERT95/DOCTORAL RESEARCH IN WAVELET NODE AND NOVEL DIELECTRICS  
Univ of Missouri

INVESTIGATOR

Defacio

TYPE/MONTHS  
RECEIVED  
AMOUNT

STATUS  
PROGRAM MANAGER  
PROPOSAL #

INITIATE  
START DATE  
TOT AMT

AASERT95/CRUSTAL STRUCTURE ESTIMATION USING SEISMIC DATA, GRAVITY  
ANOMALIES, AND A NULLSPACE PROJECTOR  
Princeton University

N 36  
22/11/94  
\$61,426

DICKINSON  
95-NM-082

INVESTIGATOR  
Augustinus

N 36  
22/11/94  
\$84,424

MACHMAN  
95-NM-083

AASERT95/DEVELOPMENT & IMPLEMENTATION OF A TOWERING CUMMULI &  
TRANSIENT CUMMULONIMBI PARAMETERIZATION USING LARGE EDDY...  
Colorado State University

William  
Cotton

N 36  
22/11/94  
\$126,429

KROLL  
95-NM-084

AASERT95/COMPUTATIONAL METHODS FOR NONLINEAR CONTROL SYSTEMS  
Washington University

Christopher  
Byrnes

N 36  
23/11/94  
\$230,544

JACOBS  
95-NM-085

AASERT95/PARALLEL AND DISTRIBUTED COMPUTING PLATFORM FOR ATM  
CLUSTERS  
Cornell University

Thorsten  
VonEicken

N 36  
23/11/94  
\$339,153

LUGINBUHL  
95-NM-086

AASERT95/AUTOMATIC METHODS & TOOLS FOR THE VERIFICATION OF HYBRID  
SYSTEMS  
Cornell University

Henzinger  
Thomas

N 36  
23/11/94  
\$174,681

LUGINBUHL  
95-NM-087

AASERT95/ VISUALIZATION OF REMOTELY-SENSED HELIOSPHERIC PLASMAS  
Univ of California, San Diego

Bernard  
Jackson

N 36  
23/11/94  
\$98,065

RADOSKI  
95-NM-088

AASERT95/IDEALIZED MODELING STUDIES OF LONG-LIVED, LARGE AMPLITUDE  
INERTIA-GRAVITY WAVES  
State University of New York - Rsch Fnd

Lance

N 36  
23/11/94  
\$117,061

KROLL  
95-NM-089

AASERT95/WAVEGUIDE CONTROLS ON REGIONAL WAVES  
Univ of California, Santa Cruz

Lay

N 36  
23/11/94  
\$115,917

DICKINSON  
95-NM-090

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 11

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS AMOUNT	PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT Amt
AASERT95/ STUDENT AUGMENTATION FOR CRYSTAL GROWTH RESEARCH State University of New York	Prasad Vishwanath	N 36 23/11/94 \$144,211	JACOBS 95-NM-091		
AASERT95/ COMPUTATIONAL METHODS FOR CONTROL IN PARTIAL DIFFERENTIAL EQUATIONS North Carolina State University	Banks H.	N 36 23/11/94 \$179,700	JACOBS 95-NM-092		
AASERT95/ STOCHASTIC CONTROL AND NONLINEAR ESTIMATION Brown University	Flooding Wendell	N 36 23/11/94 \$124,969	JACOBS 95-NM-093		
AASERT95/ ESTIMATION OF CRUST-MANTLE HETEROGENEITY IN AN EXTENDED PHANEROZOIC TERRANE: COMBINED ANALYSIS OF SEISMIC REFLECTION ... Rice University	Levander Alan	N 36 23/11/94 \$97,505	DICKINSON 95-NM-094		
AASERT95/ PATTERN RECOGNITION ALGORITHMS FOR DIGITAL IMAGE ANALYSIS Univ of Vermont	Snapp Robert	N 36 23/11/94 \$120,339	WAKSMAN 95-NM-095		
AASERT95/ NEW TECHNIQUES FOR DATA COMPRESSION Duke University	Vitter Jeffery	N 36 23/11/94 \$358,732	LUGINBUHL 95-NM-096		
AASERT95/ TIME-CRITICAL PLANNING & SCHEDULING FOR MILITARY TRANSPORTATION PROBLEMS Brown University	Dean Thomas	N 36 23/11/94 \$131,598	WAKSMAN 95-NM-097		
AASERT95/ ADVANCED HARD REAL-TIME OPERATING SYSTEMS: THE MARUTI PROJECT Univ of Maryland	Agrawala Ashok	N 36 23/11/94 \$188,819	LUGINBUHL 95-NM-098		
AASERT95/ STATISTICAL METHODS & STOCHASTIC PROCESSES IN SOFTWARE ENGINEERING - CASE STUDIES & APPLICATIONS Univ of Tennessee	Poore J.	N 36 23/11/94 \$101,002	LUGINBUHL 95-NM-099		

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

TITLE  
TITLE (CONT.)  
INSTITUTION

AASERT95/MAKING FAST MESSY ALGORITHMS FASTER

INVESTIGATOR

David

TYPE/MONTHS  
RECEIVED  
AMOUNT

STATUS  
PROGRAM MANAGER  
PROPOSAL #

INITIATE  
START DATE  
TOT AMT

Univ of Illinois

Goldberg

36

N  
23/11/94  
\$212,182

GLASSMAN  
95-NM-100

AASERT95/RESEARCH INTO DEVELOPMENT OF EXECUTABLE REFERENCE  
ARCHITECTURES FOR AVIONICS SYSTEMS  
Stanford University

Luckham  
David

N  
36  
23/11/94  
\$162,542

LUGINBUHL  
95-NM-101

AASERT95/VARIABLE STORE FLUTTER SUPPRESSION

Inman

N  
36  
23/11/94  
\$129,242

JACOBS  
95-NM-102

AASERT95/INNOVATIVE SEISMIC ARRAY ANALYSIS FOR STUDIES OF WAVE

Daniel

N  
36  
23/11/94  
\$129,242

DICKINSON  
95-NM-103

AASERT95/SUPPLEMENTAL STUDENT SUPPORT FOR RESEARCH ON LEARNING

Pavlis

N  
36  
23/11/94  
\$96,462

JACOBS  
95-NM-104

AASERT95/AUGMENTATION AWARD FOR MODELING AND CONTROL OF NONLINEAR

Riseman

N  
36  
23/11/94  
\$230,828

WAKSMAN  
95-NM-105

AASERT95/RESEARCH TRAINING IN MULTIRESOLUTION MODELING

Hauser

N  
36  
23/11/94  
\$140,538

JACOBS  
95-NM-106

AASERT95/RESEARCH TRAINING IN MULTIRESOLUTION MODELING

Hockbert

N  
36  
23/11/94  
\$172,637

JACOBS  
95-NM-107

Carnegie-Mellon University

John  
Paul

N  
36  
23/11/94  
\$172,637

LUGINBUHL  
95-NM-108

AASERT95/FAULT-TOLERANCE IN DISTRIBUTED & MULTIPROCESSOR  
REAL-TIME SYSTEMS  
Texas Engineering Experiment Station

Pradhan

N  
36  
23/11/94  
\$198,468

LUGINBUHL  
95-NM-107

AASERT95/SOFTWARE ENGINEERING TECHNIQUES FOR SAFE INTERNET  
SERVICES  
Univ of Southern California

Danrig  
Peter

N  
36  
23/11/94  
\$234,762

LUGINBUHL  
95-NM-108

PAGE 12

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 13

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/COMPUTATION & VISUALIZATION IN NONLINEAR MECHANICS Univ of Maryland	Haddocks John	N 36 23/11/94 \$158,156	NACHMAN 95-NM-109	
AASERT95/INFRARED STUDIES OF SOLAR CONVECTION New Jersey Institute of Technology	Goodale Phillip	N 36 29/11/94 \$160,085	RADOSKI 95-NM-110	
CURASIAN SURFACE WAVE PHENOMENOLOGY AND INVERSION FOR CRUSTAL AND UPPER MANTLE STRUCTURES Univ of Colorado	Lovshin Anatoli	N 20 08/12/94 \$186,724	DICKINSON 95-NM-111	\$74,785 01/03/95 \$186,724
ROBUST ADAPTIVE ALGORITHMS FOR RECONFIGURATION FLIGHT CONTROL Univ of Utah	Bodson Marc	N 36 08/12/94 \$244,392	JACOBS 95-NM-112	\$64,882 01/07/95 \$204,705
METRIC UNCERTAINTY & ROBUST CONTROL OF NONLINEAR SYSTEMS Univ of Minnesota	Georgiou Tryphon	N 36 08/12/94 \$167,167	JACOBS 95-NM-113	
SUPERRESOLUTION OF PASSIVE MILLIMETER-WAVE IMAGING Auburn University	Reeves Stanley	N 36 08/12/94 \$163,888	SJOGREN 95-NM-114	\$61,138 16/06/95 \$111,405
ANALYSIS & COMPUTATION OF VISCOUS FLOWS: 1D FLOWS, SEPARATION AND TRANSITION Iowa State University	Rothmayer Alric	N 36 08/12/94 \$222,967	NACHMAN 95-NM-115	\$88,517 01/05/95 \$222,967
PREDICTOR-CORRECTOR METHODS FOR THE LOCAL STABILIZATION OF ILL-POSED INVERSE PROBLEMS Michigan State University	Lam Patricia	N 36 08/12/94 \$176,120	NACHMAN 95-NM-116	
MATHEMATICAL & NUMERICAL ANALYSIS OF KINETIC QUANTUM TRANSPORT MODELS FOR SEMICONDUCTORS Purdue Research Foundation	Arnold Anton	N 36 08/12/94 \$87,852	NACHMAN 95-NM-117	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 14

TITLE	TITLE (CONT.)	INVESTIGATOR	INSTITUTION	TYPE/MONTHS RECEIVED	STATUS	PROGRAM MANAGER	PROPOSAL #	INITIATE START DATE	TOT AMT
INVARIANT OBJECT RECOGNITION USING RADIAL SHAPE DESCRIPTORS		Ben-Ari	Illinois Institute of Technology	N 36 14/12/94 \$159,022	A	WAKSMAN	95-NM-118		
AIRGLOW SPECTROSCOPY & THERMOSPHERIC REMOTE SENSING USING GLO-2 DATA	Computational Physics	Strickland	Douglas	N 36 14/12/94 \$298,894	A	KROLL	95-NM-119		
A CRYSTAL-GRAVIMETRIC HYDROMETER FOR ACCURATE HUMIDITY MEASUREMENTS FROM UAV AND BALLOON PLATFORMS	PhotoMetrics, Inc.	Trombridge	Christian	N 09 14/12/94 \$75,187	A	KROLL	95-NM-120		
COMPOSITIONAL MODELING FOR COMPUTER-BASED TUTORING OF PREDICTION TASKS	Univ of Texas at Austin	Porter	Bruce	N 12 14/12/94 \$97,000	A	WAKSMAN	95-NM-121	\$97,000	
SOLVING POLYNOMIAL EQUATIONS & INVARIANT COMPUTATIONS	State University of New York	Kapur	Deepak	N 36 15/12/94 \$401,578	A	WAKSMAN	95-NM-122	\$105,000	
USE OF REMOTE MEASUREMENTS AND SURFACE OBSERVATIONS TO IMPROVE SURFACE HUMIDITY AND TEMPERATURE FORECASTS IN MESOSCALE MODELS	Pennsylvania State University	Carlson	T.	N 36 16/12/94 \$243,204	A	KROLL	95-NM-123	\$75,292 01/03/95 \$243,204	
(PRE) GE PROGRAM ON CONTROLLED-COMBUSTION TECHNOLOGY	Univ of Michigan	Hernstein	Dennis	N 60 20/12/94 \$3,689,451	A	JACOBS	95-NM-124		
HITRAN MOLECULAR SPECTROSCOPY	Smithsonian Institution	Rothman	Laurence	N 36 21/12/94 \$582,441	A	KROLL	95-NM-125		
SENSOR MANAGEMENT	Friedman	Avner		N 12 21/12/94 \$55,000	A	SJOGREN	95-NM-126	\$55,000 01/04/95 \$55,000	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)  
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
 DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 15

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
THE ROLE OF KNOWLEDGE ABOUT FUNCTIONALITY IN RECOGNIZING AND UTILIZING ARTIFACTS Univ of South Florida	Bouyer	N 36 21/12/94 \$243,386	A WAKSMAN 95-NM-127	\$60,000 15/04/95 \$180,000
PRE/T/POBUST NONLINEAR CONTROL OF STALL AND FLUTTER IN AEROENGINES Univ of California, Santa Barbara	Kokotovic	N 36 22/12/94 \$3,833,338	A JACOBS 95-NM-128	\$745,970 28/04/95 \$3,140,338
PRE/T/U OF M-MCDONNELL DOUGLAS AEROSPACE IMPROVED AIR VEHICLE PERFORMANCE USING ROBUST NONLINEAR CONTROL Univ of Michigan	McClurich	N 60 22/12/94 \$3,484,964	A JACOBS 95-NM-129	
PRE/T/IMPROVFD AIR VEHICLE PERFORMANCE USING ROBUST NONLINEAR CONTROL Washington University	Hynes	N 36 22/12/94 \$3,907,270	A JACOBS 95-NM-130	
(PRE/T) ROBUST NONLINEAR CONTROL THEORY WITH APPLICATIONS TO AEROSPACE VEHICLES California Institute of Technology	Noyle	N 60 23/12/94 \$3,853,298	A JACOBS 95-NM-131	\$500,000 28/04/95 \$2,100,000
(PRE/T) COMPUTER-AIDED NONLINEAR CONTROL DESIGN FOR FLIGHT AND ENGINE SYSTEMS Univ of California, Berkeley	Packard	N 60 23/12/94 \$3,507,967	A JACOBS 95-NM-132	
GLOBAL RESONANCE EFFECTS ON DEEP SPACE ORBITS Univ of Texas at Austin	Szebehely	N 24 28/12/94 \$230,718	A NACHMAN 95-NM-133	
AN INTEGRATED APPROACH TO APPROXIMATE REASONING FOR OPERATIONS RESEARCH, CONTROL, AND DECISION SRI International	Ruspin	N 36 28/12/94 \$224,955	A WAKSMAN 95-NM-134	
MICROMETEOROLOGY OF FRONTS (MICROFRONTS) PROJECTS National Science Foundation	Stephens	N 07 28/12/94 \$15,000	A KROLL 95-NM-135	\$5,230 01/03/95 \$5,230

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT ( 1 OCT 94 - 31 DEC 94 )  
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH  
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 16

TITLE  
TITLE (CONT.)  
INSTITUTION

INVESTIGATOR

TYPE/MONTHS  
RECEIVED  
AMOUNT

STATUS  
INITIATE  
START DATE  
TOT AMT

ADAPTIVE & NEURAL CONTROL FOR NONLINEAR MANEUVERS OF AIRCRAFT

Singh

Aahjendra

N 24

JACOBS

29/12/94

\$174,480

95-NM-136

SYSTEM IDENTIFICATION & ROBUST CONTROL DESIGN: A UNIFYING APPROACH  
Integrated Systems, Inc.

Kosut

Robert

N 36

JACOBS

29/12/94

\$284,687

95-NM-137

TOOLS FOR TIME-FREQUENCY ANALYSIS  
Princeton University

Daubechies

Ingrid

N 30

SJOGREN

29/12/94

\$186,527

95-NM-138

VIEW-BASED LEARNING FOR QUASI-INVARIANT IMAGE RECOGNITION  
Michigan State University

Weng

John

N 36

WAKSMAN

29/12/94

\$281,191

95-NM-139

FAILURE DIAGNOSIS FOR DISCRETE EVENT SYSTEMS

Univ of Michigan

Teneketzis

Demosthenis

N 36

GLASSMAN

29/12/94

\$447,972

95-NM-140

COMPUTATIONAL & MATHEMATICAL INVESTIGATIONS IN OPTIMIZATION  
Cornell University

Mo.

N 36

GLASSMAN

29/12/94

\$344,000

95-NM-141